

Public Utilities

FORTNIGHTLY

Volume 68 No. 3



August 3, 1961

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THE ACADEMIC MAN AS REGULATORY COMMISSIONER

By Lincoln Smith

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Can Prepayments on Purchase Contracts Improve Utility Income?

By Willard F. Stanley


« »

The Bell Attack on Paper Work

By James H. Collins

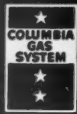
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Public Utilities

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VOLUME 68

AUGUST 3, 1961

NUMBER 3



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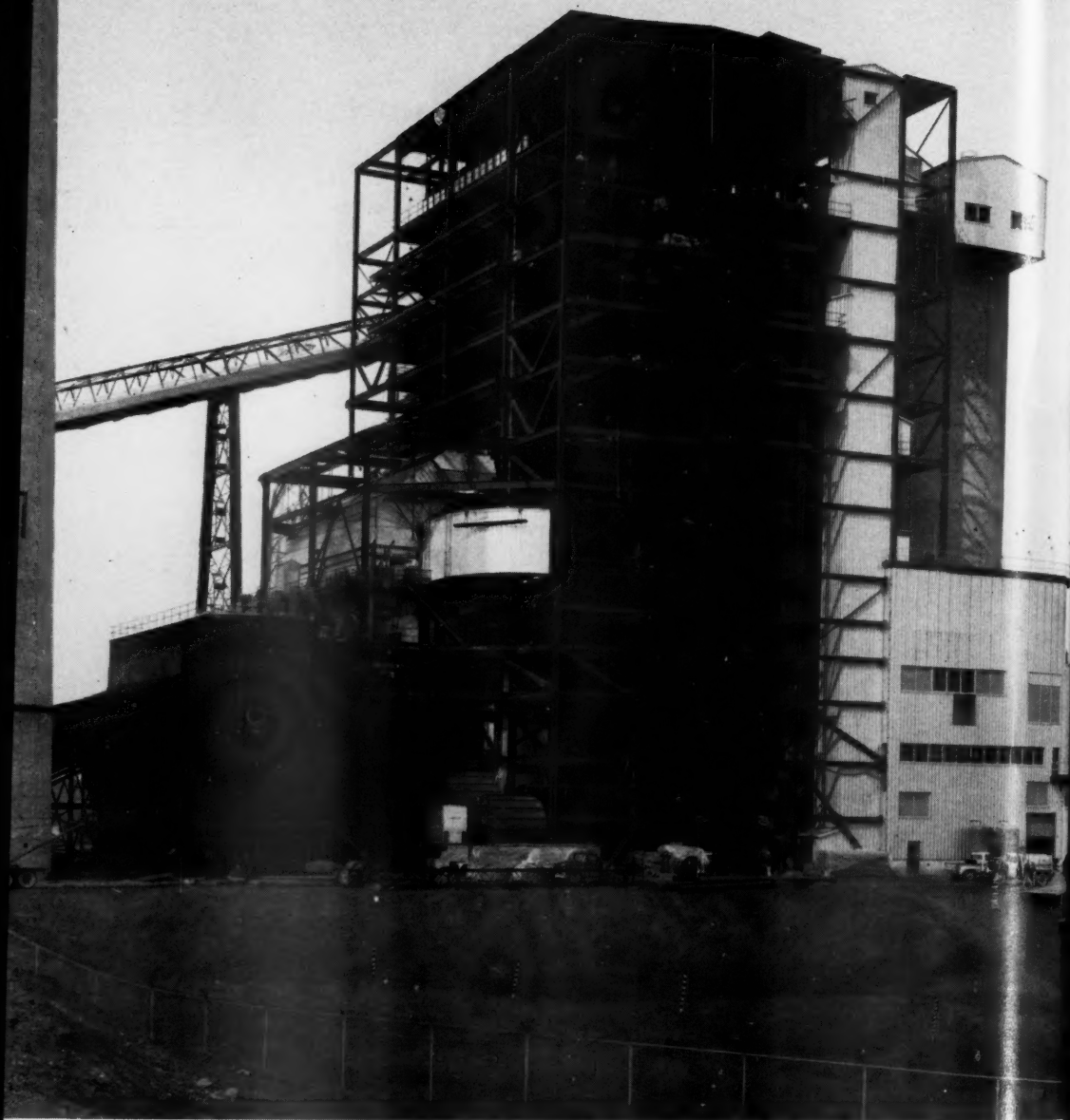
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Pages with the Editors

OUT of about a dozen reports and studies over the past year dealing with the work and reorganization of the regulatory commissions, emphasis is invariably placed on securing a high-grade membership for these posts. This is no reflection, at all, on the many competent and dedicated men who have served on these commissions through the years. Indeed, as some of the reports bring out, it is a commentary on their dedication that so many served so long and so well despite uncertain tenure and mediocre compensation, considering the responsibilities involved.

As President Kennedy's personal adviser on regulatory matters, James M. Landis has pointed out, "good men can make poor laws workable; poor men will wreak havoc with good laws." The prime key to improvement of the administrative process, therefore, is in the procurement of qualified personnel.

It is strange, however, that notwithstanding the stress which the courts have placed upon the "expertise" of the regulatory commissions, few qualifications are spelled out in either the federal or state regulatory laws. There is no discernible barrier based on age, color, creed, sex, politics, nor—what may be most important—previous training. Some states, where the commissioners are not elected, require a bipartisan membership. A few require that the commissioners be domiciled within the state, but none of the laws have anything to say about background qualifications or the lack of them.

MANY years ago—in 1929, to be exact—the idea of an "ideal" commission was discussed from the standpoint of whether it should contain a lawyer, an engineer, an accountant, or whatnot. But nothing was ever done about it. Most of the commissioners were lawyers then, as they are today. But there is no reason in the law why this should be so.



LINCOLN SMITH

IT was in contemplation of this situation that DR. LINCOLN SMITH, the author of the opening article in this issue, first decided to do a series of studies on the background and qualifications of both state and federal commissions. His studies, which range through the various professions—lawyers, engineers, accountants, staff and career appointees, and general business backgrounds—have been published from time to time in this magazine. Now DR. SMITH comes to the close of his exhaustive research with this latest article dealing with the selection of teachers and professors as commissioners. His article mentions, by name, a number of regulatory commissioners who came to their posts by way of the faculty route from an academic background.

It would appear, after sizing up most of these articles, that the conclusions DR. SMITH reached are remarkably neutral. He does find a slight trend away from the heavy preponderance of lawyers (as was found to be the case in 1929), but there has been no pronounced trend to any other particular pattern. One would think, for example, that the accent might have been on accounting, in view of the trend in recent years.

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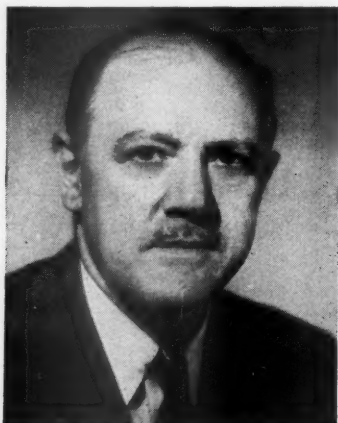
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THIS author does have a good word for career appointments — meaning the elevation of staff members or persons with some other regulatory background — to the top positions on the commissions. This is good for staff morale and gives the commission benefit of specialized experience. But as a matter of practice, none of our Presidents nor state governors have ever made an actual tradition of appointing only career officials.

DR. SMITH is a native of Maine and is associate professor of political science of the New York University faculty. He is a graduate of Bowdoin College. DR. SMITH took his AM and PhD degrees at the University of Wisconsin, and has taught at Yale, the University of Pennsylvania, and the University of California at Los Angeles.

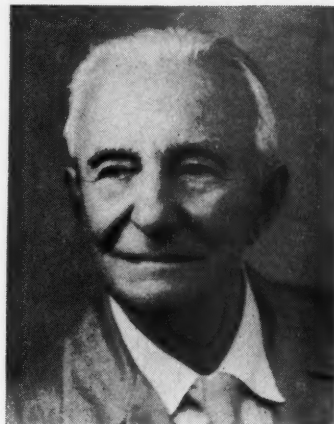
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BEGINNING on page 155 is an article by WILLARD F. STANLEY entitled "Can Prepayments on Purchase Contracts Improve Utility Income?" MR. STANLEY is a resident of Brooklyn, New York, and a writer of financial and economic articles in the field of public utility operations. In this article he discusses the question of whether utility companies can increase their income by prepayments on equipment purchase contracts. This is a technique which has been successfully used by utility companies, but some management people in the industry may not be



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WILLARD F. STANLEY



JAMES H. COLLINS

generally aware of it. MR. STANLEY believes that net income can be materially increased by making partial and periodic prepayments on contracts for equipment purchases. It is because utilities are in a position to make such prepayments that the advantages are available.

* * * *

PAPER work very often escapes attention until it becomes a really burdensome problem of management. In the Bell system it was noticed that the increasing number of telephones was being passed by the increasing number of operational and clerical employees. These curves were even in 1945 but ten years later the clerical curve was moving ahead. And so the Bell system management decided to attack the problem of increasing clerical costs on a broad frontal basis. It discovered a number of things, such as the contagious nature of "paper shuffling." Time and motion studies have been used to bring this miscreant element of skyrocketing costs under better control. JAMES H. COLLINS, Washington writer of business articles, tells us about this development in his article beginning on page 160.

THE next number of this magazine will be out August 17th.

The Editors

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Coming in the Next Issue...

1 AUGUST 17, 1961, ISSUE

THE RATE BASE VERSUS "JUST AND REASONABLE RATES." PART I.

John H. Bickley, utility consultant of Skokie, Illinois, and former federal and state regulatory expert, as well as utility executive, has taken a long and careful look at the economic relationship between the rate base and "just and reasonable rates" under present circumstances. He asks a number of penetrating questions and supplies his conception of the answers. Why, for example, should just and reasonable rates become a matter of political geography or jurisdictional boundaries? Why should the rate base likewise mean one thing in one place and a different thing in another place? The first part of this two-part article deals with the criticisms of the fair value rule, mainly as contained in the Brandeis opinion in the South-western Bell Telephone case, decided nearly four decades ago. In the second of this two-part article, Mr. Bickley will venture his own critique of the Brandeis opinion.

THE NEW ECONOMICS OF THE AIR-LINE INDUSTRY

A recent decision of the Civil Aeronautics Board allowing the domestic trunk airlines over ten per cent return on investment has stirred discussion in the old-line utility industries, such as gas, electric, and telephone, accustomed as they are to much more modest return allowances. So far the actual earnings of the airlines have been far below the CAB norm. Whether the industry will be able to reach the relatively favorable level depends upon the solution of new economic problems posed by tremendous capital expansion. Jesse J. Friedman, who heads his own economic consulting firm (Washington, D. C.), and Murray N. Friedman of the faculty of Queens College, New York city, call for a new economic philosophy in approaching the regulation of the commercial air-line industry.

THE CHANGING FACE OF AIR POLLUTION

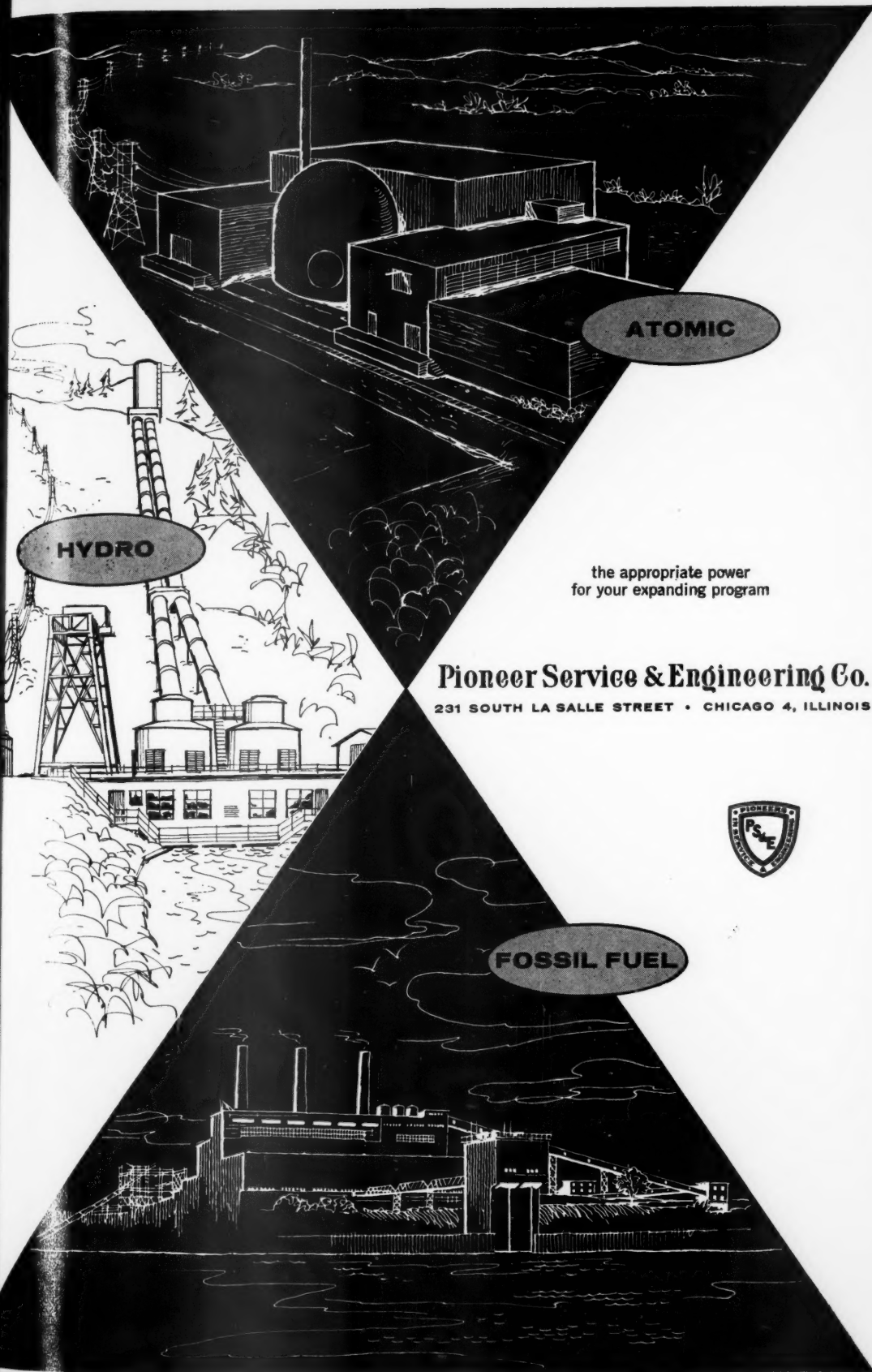
Utilities are hearing more and more about smog and air pollution control and they are doing more about it as well. Sometimes it is a little difficult, as in the recent case of the electric utility company which tried to solve the problem by importing natural gas for boiler fuel, only to trip on a regulatory hurdle erected by the Federal Power Commission. But, by and large, the utilities are making progress in this increasingly important area of public health and safety. This article about air pollution was written by the president of the Air Pollution Control Association, Dr. W. L. Faith. He is managing director of the Air Pollution Foundation (Los Angeles), a privately supported, nonprofit organization created in 1953 to determine the nature of smog in California and how to cope with it.

AND IN ADDITION . . . Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.

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LEWIS MUMFORD
Philosopher and author.

"With a few exceptions, notably in Philadelphia and Baltimore . . . sterile improvements have too often removed the living organs of the city and replaced them with an extensive but profitable mechanical substitute. Too often under the illusion that they have assisted in an urban birth, the planners and architects have actually performed a hysterectomy."

WALTER LIPPMANN
Columnist.

"The federal budget is not merely an accounting of revenues and expenditures. It is also a great fiscal engine which as a matter of national policy has to be managed in such a way as to promote a stabilized growth of the economy. It is a makeweight which has to be swung from deficit to surplus and from surplus to deficit to compensate for the ups and downs of the business cycle."

Utilities Events Calendar

CHECK THESE DATES:

Aug. 6-8—Georgia Association of Broadcasters will hold annual summer convention, St. Simon's Island, Ga.

Aug. 7-11—American Bar Association will hold annual meeting, St. Louis, Mo.

Aug. 11—Southern Gas Association, Employee Relations Section, will hold accident prevention round-table conference, Jackson, Miss.

Aug. 11—Southern Gas Association, Transmission Section, will hold pipeline chief engineers and gas measurement superintendents round tables, Birmingham, Ala.

Aug. 11-12—Texas Associated Press Broadcasters Association will hold annual meeting, Odessa, Tex.

Aug. 17—American Gas Association will hold regional transmission round-table conference, Cleveland, Ohio.

Aug. 21-23—Alaska Telephone Association will hold annual convention, Palmer, Alaska.

Aug. 22-25—Western Electronic Show and Convention will be held, San Francisco, Cal.

Aug. 23-25—American Institute of Electrical Engineers will hold Pacific general meeting, Salt Lake City, Utah.

Aug. 25-26—Arkansas Broadcasters Association will hold fall meeting, Little Rock, Ark.

Aug. 28-30—Appalachian Gas Measurement Short Course will be held, West Virginia University, Morgantown, W. Va.

Aug. 28-Sept. 1—American Society of Mechanical Engineers will hold international heat transfer conference, University of Colorado, Boulder, Colo.

Aug. 28-Sept. 8—National Association of Railroad and Utilities Commissioners, Special Committee on the Training of Commission Personnel, will hold short course, Atlanta, Ga.

Aug. 30-Sept. 1—American Institute of Mining, Metallurgical, and Petroleum Engineers will hold third annual semiconductor conference, Los Angeles, Cal.

Sept. 6—New Jersey Gas Association will hold annual meeting, Spring Lake, N. J.

Sept. 6-8—Association of Illinois Electric Co-operatives will hold annual meeting, Springfield, Ill.

Sept. 6-8—Northwest Public Power Association, Power Use Section, will hold annual workshop, Forest Grove, Ore.

Sept. 7—Rocky Mountain Gas Association will hold annual banquet, Denver, Colo.

Sept. 10-12—Associated Traffic Clubs of America will hold annual meeting, Philadelphia, Pa.

Sept. 10-13—Rocky Mountain Electrical League will hold annual fall convention, Moran, Wyo.

Sept. 11-12—American Gas Association-Edison Electric Institute will hold joint accounting section organization meeting, Cincinnati, Ohio.

Sept. 11-12—National Rural Electric Co-operative Association, Region V, will hold meeting, Eau Claire, Wis.

Sept. 11-13—American Water Works Association, Kentucky-Tennessee Section, will hold annual meeting, Louisville, Ky.

Sept. 11-13—Annual Accident Prevention Conference will be held, Dallas, Tex.

Sept. 11-15—Instrument Society of America will hold fall instrument-automation convention and exhibit as well as annual meeting, Los Angeles, Cal.

Sept. 11-19—International Navigation Congress will be held, Baltimore, Md.

Sept. 12-14—Mid-West Gas Association will hold school and conference, Ames, Iowa.



Courtesy, The Pacific Telephone and Telegraph Company

San Francisco—1906

Operators using improvised chairs immediately after the great fire in San Francisco. Company officials feel they were probably as picturesque as they were uncomfortable.

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Public Utilities

FORTNIGHTLY

VOLUME 68

AUGUST 3, 1961

NUMBER 3



The Academic Man as Regulatory Commissioner

This is the final in a series on vocational backgrounds of regulatory commissioners. In previous articles, the author has discussed the advantages and disadvantages of various vocational backgrounds, such as lawyers, engineers, accountants, general businessmen from the standpoint of effective regulatory commission operation. This article points out the use of university professors and other commissioners' academic background is explored.

By LINCOLN SMITH*

GREATER use of university scholars in public administration is advocated in this article as one antidote for much of the criticism of independent regulatory commissioners. The nomination of Professor William L. Cary of the law faculty at Columbia University last February as chairman of the Securities and Exchange Commission again brings into focus the expediency of re-

cruiting more university men for government posts.

Recent congressional investigations of agencies were critical of top personnel and recruitment policies. President Kennedy and his advisers have shown grave concern over remedies. There is agreement on the need for men of character and profound knowledge to head the commissions.¹ The Landis report concurs, deploring in the selection of commissioners, "consideration of what political obligations could be repaid through appoint-

*Associate professor of political science, New York University. For additional personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

ments."² A major indictment is that some top administrators are men of modest attainments who lack incisive concern for the public interest. The prime qualifications of some national and state commissioners are political; they are dilettantes in the substance of regulation. In the words of Dean Landis: "Top administrative positions appear to have been sought frequently as steppingstones to further political preference or to positions of importance within the industries subject to regulation."³

THIS is the final article in a series of several years on occupational qualifications of commissioners. The central theme is that thorough knowledge of subject matter is more imperative than political availability. Previous scholia on lawyers, accountants, engineers, businessmen, professional administrators, staff assistants, and laymen concluded that talented representatives of these professions and vocations tended to see regulatory problems through the astigmatism of limited horizons.⁴ Commissioners were more successful when they possessed qualities beyond those of their specific backgrounds.

Need of Knowledge

INASMUCH as regulatory administration is emerging as a distinct profession, the need for professional expertise in top command can be supplied presently from two sources: (1) promotion of staff experts to commissionerships; and (2) recruitment of men who have devoted their careers to regulation. The major objection of staff experts as commissioners is that they also are prone to view top posts

through lens of specialists. In the second category, nearly all utility executives are precluded for consideration because of protracted identification with corporate interests. Elevation of state commissioners to federal posts falls within this classification. The Eisenhower administrations made good use of this source; but its potentials remain for greater utilization. A large residuum of career men consists of university professors whose lifework is dedicated to teaching and research in regulatory administration.

SEVERAL notes of caution are in order. The subject is presented in perspective—there is no contention that university men monopolize the qualifications for commissionerships. Moreover, it is not argued that nonprofessors with appropriate erudition and personal characteristics will not be as good or better commissioners. The conclusion presented is merely that numerous university professors possess outstanding prerequisites for commissionerships. It is likewise recognized that many professors may be replete with certain occupational hazards which would make the wrong choices patently unsuitable for public service.

A narrow group of professors is under consideration. Not only do they have trained and disciplined minds, but also they possess liberal education and are steeped in the substance of public regulation. They have earned the PhD degree or its equivalent in some such area as economics, law, or political science, and they most likely are teaching segments of these fields and public utilities at the university level. Exceptions are noted for men with advanced degrees but who accepted employ-

THE ACADEMIC MAN AS REGULATORY COMMISSIONER

ment outside. However, they probably maintain cherished ties with university life and academic methods; many of them could obtain faculty positions. Some do pinch-hit occasionally for professors on leave.

The Typical Professor

THESE men have acquired a common cultural core. Typical is one who has a basic grasp of public utilities, economics, public law and administration, personnel and labor relations, politics, government, and rights and duties of both government and business. Except as analyst or rate expert, he could not qualify for a job as staff specialist; but that is advantageous in that his knowledge is not narrowed to a particular segment. He is not a specialist in accounting, but he has studied it and knows its place in the configuration. And there is no hiatus when an accountant briefs him on a situation. Although he is not a lawyer, he has studied it and knows utility law better than the average attorney, and administrative law better than many of them.

His vulnerability is apt to be in engineering, but even this may not be a blank spot in his mind. He probably took a science course as a requirement in liberal arts. He and his colleagues on the engineering faculty are bound together by affinities of professional interest. In some of the largest universities they co-operate in interdepartmental graduate courses. He has students of engineering in his courses, and close contacts with them at the graduate level. Many undergraduate courses in government and economics are geared to needs of engineers. He qualifies as a specialist in regulatory administration, because his life is devoted to it.

SELECTION of these men as commissioners would avoid evils of a taxonomic approach furnished by lawyers, accountants, or engineers whose knowledge is compartmentalized. Professors of regulation offer a rare combination which can wield the components into an intellectual osmosis. The promise is for a macroscopic rather than a microscopic view. Academic men are preponderantly superior to laymen or "generalists," because they are able to direct and grapple with staff work. Commissioners unfamiliar with the field, on the other hand, risk the danger that complete reliance on staff expertise makes them prisoners of their staff experts.

There are certain elements the term excludes. Ordinarily it does not pertain to the professor in small colleges who becomes a sort of Jack-of-all-trades and master of none; one who may have utility regulation thrown at him to teach every second or third year, along with other courses. To some of these men public regulation may be an avocation or



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hobby. But if they qualified as experts they would be employed at a university or large college. The classification usually does not refer to the strictly research professor who rarely teaches. These men tend to be theorists in ivory towers, egg-heads, and subject to the limitations of unfamiliarity with realities.

THE ideal subject has a good balance between profundity and the pragmatism of teaching and participating in the university milieu. As a teacher he is a judge of character, ability, and attainments, and the experience in reappraisal and evaluation of projects, programs, and alternatives. Although he is capable of expressing suspended judgment, he must make decisions and assume responsibility for them, frequently in quasi-judicial capacities. The university man co-ordinates and supervises research assistants, comparable to staff employees on a commission. He gives them direction and maintains them as a working team. He delegates authority but not responsibility to trusted ones. He also superintends masters' theses and guides doctoral dissertations. In return for a relatively light teaching load in the large university, he must produce constructive scholarship in the area of his professional competence. Not only does he know how to improvise, but he does so with "empirical shrewdness."⁵

As a contributor to scholarly journals many professors have demonstrated an uncanny knack of clarity and facility in oral and written expression. Years ago that endowment gave scholars an advantage in developing and writing commission decrees. But it is of doubtful probative force in this era when ghost writers

and protégés of less learned commissioners sometimes are assigned the literary functions.

The university professor is not entirely a novice in the aura of politics; neither is he a social recluse. In fact, he probably is quite adept in both circles. University life is replete with factional struggles, sometimes minor and sometimes serious.⁶ Strife may be over professional rivalries, interdepartmental, intra-departmental, and even interschool conflicts. Occasionally only personalities are involved.

A man who knows his way around a large university has demonstrated some adaptability in the political arena. He may not like a political tussle, but he seldom fears one. In addition, he has advantages of being a substantial citizen in his community. As a voter, civic leader, consultant in his professional area he may have made many positive and continuing contributions to public welfare. He is recognized as a man of honor, achievements, and stature. And, perhaps more important for this case, he is one of the definitive authorities in public regulation in his vicinity; maybe in his state. Leaders in public and private walks of life know him professionally and are thoroughly aware of his views, strengths, weaknesses, and idiosyncrasies. And university men usually have lofty codes of ethics to transplant wherever they go. There is an ample base on which to evaluate his worthiness for a public agency. His political availability is latent if not actual.

The Relationship

UNIVERSITY men as commissioners presume a conceptual relationship be-

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tween the commission and centers of learning, because American education has obligations to public service. In the absence of a great national university to influence the agencies in Washington, fruition of the idea has implementation in some of the states. The point was elaborated by Frederick Jackson Turner as a frontier development.⁷ The relationship between the University of Wisconsin and the Wisconsin Public Service Commission as part of "The Wisconsin Idea" is an example.⁸ Many others can be cited. Dartmouth College has made a great imprint on the New Hampshire commission.

Previously, Bowdoin College and the University of Maine were close to the Maine commission. Wesleyan University and Yale University have influenced the Connecticut commission. Both New York University and Columbia University at times have had close contacts with the New York and New Jersey commissions. Much the same is true of the University of Pennsylvania and the Pennsylvania agency. And the University of Texas and the Texas Railroad Commission have

co-operated in many ways. Often informal arrangements prompt such liaison. But in Ohio, for example, it is mandatory by legislative enactment.⁹

EVERY large university has three or four of these men, although the writer knows only five relatively recent cases wherein these ready-made commissioners accepted appointments. All qualified as American scholars on bases of training, experience, publications, temperament, and personal and professional rectitude.

Dr. Clyde Olin Fisher of Wesleyan University was appointed to the Connecticut Public Utilities Commission in 1941, and was chairman at the time of his retirement in 1947. But the professor did not sever his university connections. He taught part time while contributing to public service in nearby Hartford, and returned to the university full time following retirement from the commission.¹⁰

Dr. Nelson Lee Smith of Dartmouth College was offered a commissionership on the struggling New Hampshire Public Service Commission in 1933. When he hesitated to accept because of fondness

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for an academic career, the college gave him leave of absence which was extended for four consecutive years. At that time he decided to forego a professional career for one in regulatory administration, and resigned a full professorship. Later he went on the Federal Power Commission, and served as its chairman.

Dean James M. Landis took time from the Harvard Law School to serve on the Federal Trade Commission, Securities and Exchange Commission, and Civil Aeronautics Board (chairman of two), and later became a member of the New York Public Service Commission. Possessor of several advanced degrees, author, scholar, and administrator, Dr. Landis also held important staff posts in national, state, and local government.

Dr. Martin G. Glaeser, professor of economics and commerce of the University of Wisconsin, became a commissioner on the public service commission of that state in 1959. His appointment came a few months before his retirement from the university faculty.¹¹

The final example is that of Professor Cary, who is on leave from Columbia University for service on the Securities and Exchange Commission. He holds degrees in law and business administration, and previously taught at the Harvard Graduate School of Business Administration and at Northwestern University School of Law. For nearly two years he was a member of the legal staff of the Securities and Exchange Commission, and later was special assistant to the Attorney General.

Retain Affiliations

THESE appointments had several affinities. Each man was the author of

one or more important treatises on regulation; each had previously ventured into government service as professional consultant and thus was well-known in respective jurisdictions; and each displayed reluctance to make a complete break with the university while a teaching career was open. The appointments were considered fortunate ones, and lent high degrees of prestige to the administrations of governors responsible for making them.

Additional evidence more remote and peripheral is cited for concreteness. Paul J. Raver left Northwestern University in 1933 to join the Illinois Commerce Commission. University teaching was not always the primary occupation of other men elevated to commissionerships. In his diversified career, Albert A. Carretta taught economics, finance, accounting, and corporation law at college and university levels; and Howard G. Freas taught land and air transportation at Stanford University before becoming commissioners on the Interstate Commerce Commission. Charles D. Mahaffie taught jurisprudence at Princeton University, Henry DeW. Smyth was professor of physics at Princeton, and Eugene M. Zuckert taught government and business at Harvard University previous to their commissionerships on the Atomic Energy Commission.¹²

SOME of the usual stereotypes of the university professor tend to militate not only against his appointment to commissions but also to register as debits on his desirability thereon. There is the typical American political hostility to intellectualism, and the syllogism against turning government agencies over to academic theorists. These platitudes lack

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logical bases, but furnish shrill psychological ammunition for election campaigns. A recent appointment, for example, drew the charge that one party was "in the process of turning state government over to professors at the university."¹³

In a penetrating article on regulation, Professor Francis X. Welch recently raised this incisive question: "What price the expertise of a PhD in engineering or a career on a regulatory commission if a federal judge, whose background has been confined to legal practice in other fields or in judicial chambers, is set over them in the rôle of supervisor?"¹⁴ The dilemma involves the whole ambit of judicial review of administrative tribunals. His conclusion is that commissions, as arms of Congress in expert capacities, should be responsible for value judgments under the law; judicial self-restraint should be invoked in refraining from substituting judicial for commission conclusions on substantive matters.

Certain professors plainly would be undesirable as commissioners. They are mature men with ideas, convictions, and self-assurance. A grave danger is that some would go on commissions in order to inject their personal and professional predilections into the making of public policy at the administrative level. Such a contingency is deplorable when a quasi-judicial tribunal is made up of one or more members who are protagonists for particular causes. The rejoinder is that a scholarly professor is endowed with judicious temperament despite some of his own professional convictions.

ANOTHER disadvantage is that an academic mind shows a proclivity to

be hypercautious, become lost in analytical haze, be unduly sedate, and antediluvian. Such personages are known in almost any faculty. When limited to university circles, however, the generalization is offered that the professor has earned his position and status because he has demonstrated dynamic qualities in the classroom, in productive research, and in his quest for ascertaining new ways of doing things. Such attributes are fundamental to the scholar. When he becomes senile in these respects, he is valuable neither to the university nor to the public service.

Salary Problems

ANOTHER trenchant question is why outstanding professors are not interested in commissionerships. The answer waives usual arguments of low salaries, political uncertainties, "red tape," subjection to publicity, limited prestige, and political accountability. Some university men forego public jobs because a "good" commissioner must display an affirmative force and drive quite antithetical to campus atmosphere. Departments in some universities fit the job to the man, particularly when the professor is an authority in his



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field. This principle of Ergonomics, which may be a fad in industrial relations, has only remote application to personnel.¹⁵ Some professors, however, receive preferred and sequestered treatment which carries down to junior members who rate with the inner circle. Commissioners, on the other hand, need "tough skins." Not many faculty prima donnas would cherish the political sparring required under public accountability.

A TRUE scholar cannot compromise fundamental beliefs and principles. In this sense he is a nonconformist. Although he qualifies extraordinarily for substantive phases of regulation, he cannot and would not be able to act with a clear conscience with regard to political elements. In the latter category, it might be difficult, if not impossible, to maintain his personal and academic integrity. A panel of three or more commissioners often must compromise with what an individual thinks best, in light of political expediencies. In addition, they are subject to political pressures of various sorts—from legislators, chief executives, political leaders at home who groomed them for the positions, as well as industrial executives, consumers' groups, and others. While a scholar does not want to compromise and accept second or third preferences, part of the stock in trade of an adept politician is to work out agreements acceptable to many interests even though they are not ideal solutions the true scholar demands.

One professor expressed it to the writer this way: "Many able men who want to go on commissions are imbued with Potomac Fever—an ardent desire to get down there, and get along as well as pos-

sible." Such aspirations fit in well with professors and other qualified men whose ideas, attitudes, and emotions fit into the political picture at a particular time, because numerous national and state agencies seem, at times, motivated by utilitarian ends. The man sought and recruited may have to be one with a determination to please. The professor with the courage of his convictions and with a mission in life seldom can accede to regulatory decisions which are based, even in part, on adaptation to political implications of what the traffic will bear. A cold-blooded economist from the academic world, for example, cannot feel at home in the pragmatic administrative frame of reference in which independent regulatory commissions are compelled to operate.

BECAUSE politics in the United States is a great leveler, the commissioner with superior knowledge and ability at times must condescend to compromise with intellectual inferiors. In the classroom, the professor's word is law. His field is his own prerogative, not even colleagues will interfere lest it be construed as infringement on academic freedom. Many mature ones have built fences around their areas of specialization, which are pre-empted from colleagues.

On a commission, however, the professor is one of three, five, or even eleven men. He must work with his associates as a composite group. He must contribute to teamwork and even endure political upstarts and novices in regulation. It might be just as obnoxious for the learned professor to team up with colleagues on a commission as it would be for him to collaborate with a student in grading the latter's final examination. Many univer-

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sity men can spot shallow minds; they despise all forms of superficiality. In the university they ordinarily work with trained minds, and are able to shun undesirables. But the political authorities who nominate and confirm commissioners only rarely recruit them on bases similar to the selection of university faculty.

THE author's considered opinion is that university professors (with appropriate personal characteristics) constitute one of the better sources to tap for regulatory commissioners. This conclusion emerged after several hypotheses were explored and found somewhat defective. There are relatively few precedents to sustain it; and political leaders will dislike academic inroads on their prerogatives. Nevertheless, this article has analyzed intrinsic and extrinsic factors involved, provided insight, and presented the rationale for its synthesis for the series of studies.

Professors as Commissioners

THE range of relevance is confined to perhaps 100 or 200 professors as possibilities for commissionerships in the United States. Not many can be tempted

from faculty status; but some might be cajoled into acceptance of public posts on proper inducement. Since prescription should follow diagnosis one task ahead is to make regulatory positions more attractive.¹⁶ Then another is to insist upon more lofty professional standards in the nomination and confirmation of commissioners. If regulatory administration is to survive, the agencies need more than they are getting currently—men of integrity and good intentions, and men of promise. Commissioners are required whose erudition coincides with functions of the agency. Certain university men are preeminently qualified. But it is always a matter of making the right choices.

Individual Judgments

RESPONSIBLE personnel at the administrative policy-making level of government today often must make decisions beyond their own professional competence. This is a vital essence of public regulation. Yet no syllogism is available to indicate that one vocational background is better than another. The average layman has breadth, but probably lacks depth and a trained mind. The lawyer, accountant, and engineer have pro-

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fundity and disciplined minds, but are apt to lack versatility. The academic man is quite likely to offer a combination of the three—perspective, keen concentrative abilities, and intensive learning in a large sector of the regulatory ambit.

Analysis of vocational experience for commissioners helps to provide understanding of multifarious needs of agencies at top and staff levels. But that is merely a prelude, or screening process, for wise selection. This series has endeavored to show a necessity of avoiding encysted professional or vocational appointments. It remains for a complementary study to penetrate further into political factors in the appointment or election of commissioners.

A COMMISSION, for example, would assume quite a different economic

complexion if loaded with lawyers, engineers, and accountants from utilities, or from the Bureau of Reclamation, TVA, or the staff of the California agency. So, a more incisive question is not academic environment so much as economic background in society of a prospective commissioner.

AFTER all, many functions of commissions are comparable with those of juries. Members often must work out of context on both—in a sense the jobs make the men. Members bring their thinking to the public spectrum, but "good" choices contribute more than backgrounds. The conclusion is offered, however, that university men are equipped to bring to agencies a better combination of perspective and depth than people from other walks of life.



Footnotes

¹ "Investigation of Regulatory Commissions and Agencies." Interim Report of the Committee on Interstate and Foreign Commerce. Subcommittee on Legislative Oversight. February 9, 1960.

² "Report on Regulatory Agencies to the President-elect." Submitted by the chairman of the Subcommittee on Administrative Practice and Procedure to the Committee on the Judiciary of the U. S. Senate. December, 1960, p. 11.

³ Ibid., p. 12.

⁴ Here are citations for previous articles: "Lawyers as Regulatory Commissioners," *George Washington Law Review*, March, 1955; "Accountants as Regulatory Commissioners," *PUBLIC UTILITIES FORTNIGHTLY*, January 17, 1957; "Engineers as Regulatory Commissioners," *ibid.*, Part I, November 7, 1957; Part II, November 21, 1957; "Laymen as Regulatory Commissioners," *ibid.*, Part I, May 7, 1959; Part II, May 21, 1959; "Professional Administrators as Regulatory Commissioners," *ibid.*, August 13, 1959; "Businessmen as Regulatory Commissioners," *The Journal of Business*, Summer, 1958.

⁵ The term, not its application here, is from "Administrative Vitality," by Marshall E. Dimock (New York, 1959), p. 121.

⁶ "The Academic Marketplace," by Theodore Caplow and Reece J. McGee (New York, 1958).

⁷ "The Frontier in American History," by Frederick Jackson Turner (New York, 1920), p. 285.

⁸ "The Wisconsin Idea," by Charles McCarthy (New York, 1912).

⁹ *Ohio Revised Code*, § 4901.21.

¹⁰ Data on appointments of Drs. Fisher and Smith were supplied by them in personal interviews several years ago. On Dean Landis, see "Who's Who in America" (1960-61), Vol. 31 (Chicago), p. 1660.

¹¹ Material is taken from *The Capital Times*, Madison, Wisconsin, February 3, 5, 26, and March 4, 1959; also, *Congressional Record*, Vol. 105, No. 21, 86th Congress, First Session, February 6, 1959, pp. A907-A908. The press release on Commissioner Cary is from the Securities and Exchange Commission, March 27, 1961.

¹² For amplification, see "Professional Qualifications of Federal Regulatory Commissioners," *PUBLIC UTILITIES FORTNIGHTLY*, Part I, November 25, 1954; Part II, December 9, 1954.

¹³ *The Capital Times*, *op. cit.*, February 5, 1959.

¹⁴ "The Effectiveness of Commission Regulation of Public Utility Enterprise," by Francis X. Welch, *The Georgetown Law Journal*, Summer 1961, Vol. 49, No. 4, pp. 639-672, at p. 659.

¹⁵ The term means "the customs, habits, or laws of work." It was popularized in war work, but not much in administrative spheres. See: "What Is Ergonomics?" by A. T. Welford, *Personnel Management*, September, 1958, pp. 157-161.

¹⁶ Dean Landis wrote that the challenge inherent in the job is more important than salary. Tenure is another important consideration. He continued: "Our universities have known and, indeed, traded on these facts." Landis Report, *op. cit.*, p. 66.

Can Prepayments on Purchase Contracts Improve Utility Income?



By WILLARD F. STANLEY*

This article discusses the question of whether utility companies can increase their income by prepayments on equipment purchase contracts. This is a technique which has been successfully used by utilities, but some management people in the industry may not be generally aware of it.

THROUGH a technique which has been successfully used by utilities, but of which it is believed the industry is not generally aware, net income can be materially increased by making partial and periodic prepayments of contracts for the purchase of equipment.

Equipment manufacturers have allowed a discount in price on the equipment in the event of such prepayments, the discount representing the amount of income which the manufacturer can obtain during the period of the prepayments by investing the funds in 90-day U. S. Treasury bills. The manufacturers are willing

to allow as a discount the entire income derived from investment in these bills, without deduction for income tax thereon, since it is merely substituting income from interest on the bills for income which would otherwise be represented by an equal amount of greater profit on the sale of the equipment, both of which types of income are equally subject to income tax to the manufacturer.

FUNDS for the prepayments should be readily obtainable by the utilities through short-term borrowings from their banks. Since the permanent financing schedule should be worked out without regard to the prepayments, the bank

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loans can, when the prepayment period ends, be paid through the permanent financing, which funds would otherwise be used to make the payments on the equipment contracts as originally scheduled. While the utility should receive a credit equal to full interest on the Treasury bills in the form of a discount on the price of the equipment, interest on the bank loan which it makes in order to effect the prepayments is deductible for income tax purposes by the utility.

Thus, when, as at present, 90-day Treasury bills yield somewhere around 2.5 per cent per annum and the interest rate on high-grade, short-term borrowings is around 4.5 per cent, the comparison would be between a discount of 2.5 per cent per annum and a net after-tax cost of interest to borrow the prepayments of about 2.25 per cent at the present tax rate, or a net economic gain from this phase of the transaction of about one-quarter to 1 per cent per annum on the prepayments. This is a rather negligible item, but the principal benefit from the prepayment arrangement arises from another source.

Carried as Equipment Costs

IT arises by reason of the ability of the utility making the prepayments thereby to increase materially the amounts capitalized on its books as interest during construction as part of the cost of the equipment being purchased, with a consequent credit to income of the amount so capitalized. This benefit would be derived, therefore, only by those utilities which currently follow the practice of capitalizing interest during construction. However, since it is believed that by far

the great majority of utilities presently capitalize this item, the benefits from this proposed technique should be available to most utilities.

Assuming that interest during construction is being capitalized at a rate of 6 per cent per annum, the increase in income from this source, after first deducting the net cost of the funds borrowed to make the prepayments (assumed to be 2.25 per cent per annum with a 50 per cent tax rate), would amount to 3.75 per cent per annum on the amount of the prepayments for the period thereof, which should result in a considerable gain in earnings if any substantial amounts of the prepayments are involved.

No Interest Deduction

THERE need be no deduction from the 6 per cent interest during construction credit to income because of income taxes, since taxpayers are permitted, at their option, to eliminate this credit in computing taxable income, in which case the tax base of the equipment is not increased by the interest during construction capitalized. While there is no authentic information available as to the policy pursued by the various utilities in this respect, it is believed that in a majority of cases the utility probably elects not to consider the interest during construction credit as subject to income tax.

To see how the prepayment technique might work out in a hypothetical case, let us assume, for example, an electric utility with \$400 million of net assets (about the average for that industry), with a continuous annual expansion at the rate of 6 per cent or \$24 million—also about the industry average. Let us further assume about 40 per cent of total ex-

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pansion expenditures, or \$10 million, is for new production facilities. Then let us assume the utility is successful in negotiating prepayments with manufacturers of such production facilities with respect to about 70 per cent of the \$10 million thereof (or \$7 million), and that the weighted average period covered by the prepayments is about 70 per cent of a full year. Assuming net gain to income is 3.75 per cent of the prepayments from the additional credit for interest during construction, less the loan interest after the tax deduction, we find that the transaction produces increased income in the first year of around \$183,000.

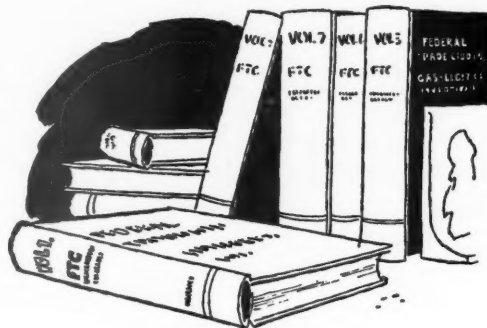
IF we assume our hypothetical utility has \$150 million of common stock equity (about average) on which it earns about 11 per cent or \$16.5 million (also near the average for the industry), the above gain to net income would represent an increase of a bit over 1 per cent, making a well worth-while increment to earnings.

An after-tax gain in income of \$183,000 from contract prepayments along the above lines represents a material sum. However, if this benefit were obtainable

only once it would not be so significant. However, expansion of most utilities is today continuous on an annual basis. The amounts vary from year to year, but in each year the tendency is to purchase and install new facilities, representing on the average a material percentage of existing plant account. This being the case, there would seem to be no reason why the benefits from prepayment equipments contracts could not be considered as of a recurring nature, inasmuch as the same technique could be applied with respect to prepaying the production facilities scheduled for payment in each year under the utility's long-range and continuous expansion program. Viewed as a recurring credit to net income, the benefits of prepayment arrangements assume a vastly increased value to the utility as a vehicle to legitimately enhance income.

Stocks Selling High

UTILITY common stocks are presently selling in the market at about an average of 21 times their most recent annual earnings per share. On this basis, a recurring increase along the lines projected above (\$183,000 per annum)



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should improve market values of the utility's equity by around \$4 million, at least in the early years following adoption of a policy of prepayments.

While it might normally be expected that a net economic benefit would arise by comparing the price discount with the net cost of the funds borrowed to make the prepayments, the benefit from this source is relatively insignificant, while the advantage to be gained from increasing the interest during construction credit is relatively high. Therefore, it might reasonably be contended that prepayments on equipment contracts were both desirable and warranted, even in cases where they resulted in a small net economic loss from comparing the allowed discount with the net borrowing cost, in view of the substantial increase in income to be derived from the increased interest during construction factor.

It is suggested that purchase contracts for equipment be negotiated and signed with normal instalment payments provided for and without giving effect to any prepayments. Then, after the contract is signed, the utility can, at its leisure, negotiate for prepayments. This procedure will insure knowledge to the utility as to just how much it will derive in price discount by reason of the prepayments.

High Construction Interest

THE gains in income to the utility from arrangements to prepay equipments items along the lines outlined above are subject to deduction to the extent of the increased book depreciation arising from this treatment. This increase results from the excess of the increase in the cost of

the equipment due to higher interest during construction (\$294,000 under the above example) over the discount allowed (about \$124,000 in the above example), or a net increase in book plant account of about \$170,000 a year. The additional net depreciation charges (about \$4,250 per annum) will be spread equally over the life expectancy of the equipment. Since the prepayments will, in general, apply to production equipment, it is probable this life expectancy will be forty years on the average and the above depreciation figure is based on that life.

On the basis of annually recurring arrangements for prepayments, as assumed above, the average net gain in income would, even after giving effect to deduction of these higher book depreciation annual charges, average about \$100,000 over a 40-year life expectancy, as compared with the \$183,000 realized the first year. This would make the percentage gain in assumed net income about 00.6 per cent per annum, and would presumably increase market value of the common stock by over \$2 million on a permanent average basis throughout the same 40-year period, using current price-earnings ratios. These depreciation charges would increase as the years go by, while the gross benefit to annual income would remain constant. Thus, for a period of the first ten years following the inauguration of annual prepayments on equipment, net increase in income from all phases of the transaction would average in excess of \$160,000 annually on the bases above assumed.

THE ever-increasing price-earnings ratios applicable to utility common

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stocks in recent years, make it more important than ever for utility management to do its utmost to increase per share earnings by every legitimate, available means, since the impact of these earnings on the value of the common stock has become so substantial. With a price-earnings ratio of ten times, \$1 of added earnings means only \$10 of increased market value for the stock, but with the price-earnings ratio at 21 times, the same dollar increase in per share earnings should represent \$21 of increased market value.

Indirect Advantage

THE increased interest during construction, by resulting in a net increase in book plant account, will have the further indirect advantage to the utility of increasing its rate base. The utility can thus anticipate a return of somewhere around 6 per cent on the additional credits so developed (less the allowed discount).

Such a 6 per cent return would amount to \$4,000 plus per annum on the basis of the annual increase in plant of about \$170,000 assumed by the foregoing example. Such a gain, once realized, would, of course, be considered of a recurring nature.

Obtaining the actual benefit of this added return on rate base would, however, have to await a change in rates, whether under a rate increase proceeding or one to reduce rates, in either of which cases it should be of benefit to the utility.

ACCORDINGLY, it would appear that considering all the factors involved, such a program of recurring annual prepayments of equipment contracts, if carefully worked out to function along with the plans for permanent financing of expansion, should result in material gains to utilities—in their earnings, in consequent increased market values of their common stock, and also in a potential gain through higher rate base.

It is believed that the leading equipment manufacturers will be quite willing to co-operate with the utilities in arranging for these prepayments on a basis which should result in a definite benefit to the utilities and equivalent income to the manufacturer.

IT is important that the prepayments not be included in the utility's permanent financing schedule, else they will be made, in effect, in part out of common stock funds, where no income tax deduction applies and where consequently the after-tax cost of the money will be higher. By pursuing the basic financial program without involving the prepayments, the utility can arrange to finance the prepayments solely by low-cost, short-term bank loans, which can be repaid at the end of the prepayment periods by use of the proceeds of permanent financing which, without the prepayments, would otherwise have been applied directly to pay for the equipment at the times scheduled in the original contracts.

The Bell Attack on Paper Work



In the Bell system it was noticed that in recent years the increasing number of telephones was being surpassed by the increasing number of operational and clerical employees. These curves were even in 1945, but ten years later the clerical curve was moving ahead. And so the Bell system management decided to attack the problem of increasing clerical costs on a broad frontal basis.

By JAMES H. COLLINS*

WILL the glaciers of another ice age eventually creep down over the northern hemisphere, the oceans recede, leaving New York and London high and dry, and our proud civilization be obliterated?

It has undoubtedly happened before, and scientists are not certain that it cannot happen again, or when. They try to measure the probabilities, but their meteorological information goes back only a few centuries.

Before this happens, our civilization might well be buried under continental masses of paper—the paper work we

are contriving to carry it on. Which has a glacier-like creep, and our data for estimating its onset do not go back much beyond Noah's flood, for which records are found in the clay tablets of the Babylonian temples, the paper work of that age.

The young executive generation has no memories of prewar days, when change in business was moderate, braked by the depression years, and adjustments could be made to duplicating form, mimeograph, adding machines, typist pools, and such devices, now regarded as outdated. Those were, to management men who remember them, the good old days, but to the young executives not imaginable.

*Free-lance writer, resident in Washington, D. C. For additional personal note, see "Pages with the Editors."

THE BELL ATTACK ON PAPER WORK

At war's end, change simply exploded. There was pent-up consumer demand for goods and services, and for industrial and commercial equipment to expand plant, and keep pace. Population was shifting, work forces had to be increased; there was inflation—and there was paper work, soon to be seen as a separate thing in itself, and affecting every kind and size of business.

THE biggest bang of all, undoubtedly, was set off in the Bell telephone system. It was the country's largest business in size, and in the complexity of its operations. At war's end Bell had 22.5 million phones. This doubled to 46,250,000 by 1955, with corresponding explosions in the work force, plant, traffic, and investment.

Paper work is generally noticed when it comes out of the walls, like termites, and begins gnawing away at the foundations of a business. In the Bell system it materialized in two curves of operational and clerical employees. These curves started even in 1945, and for three or four years ran along neck and neck. Then the clerical curve went ahead, and began climbing a mountain. By 1955, when the number of Bell phones had doubled, the nonclerical curve had risen 60 per cent, but the clerical curve had reached 100 per cent. Figured in terms of costs, a regional Bell company would discover that clerical work ran up to something like \$40 million a year, and was growing at a rate that would double the next decade.

The Bell attack on the problem has points for other lines of business, facing the same situation, though different in size and character.

Paper Shuffling Is Habit Forming

THE creep of paper work in many businesses is likely to show up in details like printing bills and office supplies, in the duplicating room and store-room.

A rise in printing bills is run down to the forms needed in running the business, many of which are interoffice. This may lead to a study of those forms, the elimination of some, the simplification of others, the combining of several others into one form, and perhaps the use of cheaper paper. An increase of a million copies of memos, reports, and similar papers, passed around for the attention of Smith, Jones, and Brown, suggests that if fewer things were passed around, there could be economies.

The term "paper shuffling" has been coined for this kind of paper work, and a general appeal may be made to the organization to refrain from it as far as possible. The memo or report that Smith regards as important to Jones, may not be so, and may not need attention from Brown, and others.

Then, there is status paper work, one high-up writing his letters on engraved letterheads and heavy bond paper, while lower-downs have lithographed bond, and so on, as status decreases. It is the familiar situation of the private office, the personal secretary, the number of telephones. Who is going to ask the "brass" to shorten letters, write them on less expensive stationery, and call on the typist pool?

A GENERAL appeal to the organization will urge cutting down on paper shuffling by using routing slips that can

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start a report or memo with two or three pencil nicks; to cut down the number passed around; to be sure they go to the right persons; to challenge reports, determine whether they are necessary; to cut out dictating and typing if a penciled tab will do the job; and especially to ease the load on filed and stored papers.

There is the "dead hand" in paper work, the statistics that were ordered by an executive ten or fifteen years ago, which are still prepared and laid on the desk of his successor, who asks "What is this stuff?" and orders it stopped.

There is a story going round, often cited as a short way out of paper problems. The proprietor of an English store chain, impressed by the amount of accounting needed for the payroll, summarily ordered out all the time clocks, saying that employees could be trusted to do an honest day's work. And for a time promptitude did improve, according to the story. Carrying this reasoning further, he said that most people are honest, and eliminated paper work used for customers.



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THIS might be dubbed the snickersnee attack on paper work, and it makes a good story. But the accountants, consultants, professors, and investigators working in depth on the problem, would point out that, after all the time clocks had been taken out, and customers allowed to wait on themselves, a chain store business would still need merchandise. Which has to be ordered, to specifications, checked on delivery, paid for taking discounts, warehoused, inventoried, watched for "outs" and theft.

Also, in England as well as here, there are taxes to be accounted for.

Back to the Days of "Efficiency"

THE Bell attack on paper costs was made from two angles. First a thorough exploration of accounting operations, to determine which were necessary, and which could be eliminated or improved.

Approximately 10 per cent of all paper work is performed on jobs that need not be done at all, according to Bell and other investigators. Another 20 per cent, though necessary, is being done wastefully, could be made easier, faster, and less expensive. Finally, the remaining 70 per cent is being done with about 60 per cent to 70 per cent efficiency.

The second attack was made in the alluring field of mechanization, turning paper work over to machines, electronic and other. In the popular imagination, this field is something like space exploration. It promises push-button work, shorter hours, more leisure, more money, the good life.

Bell and other investigators warn that the electronic computers are not all they are cracked up to be. And Bell itself is

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in the push-button business, mechanizing its own accounting operations, and those of other concerns.

To find out what paper work is really essential in running the business, and what is expendable, Bell investigators went back to the days of the "efficiency" pioneers. Beginning with interchangeable parts, time and motion studies, the assembly line, and all, American production has been steadily quickened and cheapened. Nothing comparable has been done in the accounting field.

BACK in the early years of this century there appeared a new word, a fighting word, "efficiency." A production engineer, Frederick Taylor, took a stop watch into machine shops, clocked different workers on different jobs, and out of their performances established averages, standard times, in which the specific job could be done. Out of these studies he developed "scientific management," for which he became a consultant.

People on jobs hated the idea. They were mostly on piecework, but the standard times could be applied to hourly wage workers. It was regarded as a speed-up device to get more work out of them. Even management balked. It would be hard to introduce scientific management in the work force, and management said, "Any time I need an expert to come in here and tell me how to run my business!" It is forgotten that Taylor also clocked tools and materials, and set them standard times.

About the same time another engineer, Frank Gilbreth, took a motion picture camera into factories where the work was mostly assembling. Gilbreth had been a contractor, and observed that workers ac-

quired a rhythm on a job, a motion, and that those with a good motion turned out the most work, and with the least spoilage. Locating the best workers by their output and pay checks, he filmed them, and ran the film for audiences of slow and average workers.

THESE films not only showed the top earners' working rhythms, but how tools and materials were laid out, and tasks performed together. The film could show details in slow motion: "Jim, please do that again, and slow." There was fear of speed up here, too, and management hesitancy. Gilbreth's idea was best understood in Germany, where he took it in the first years of the "Kaiser's war." The Germans loved systems, and needed efficiency.

Neither Taylor nor Gilbreth could be blamed for the hated word. Another engineer, Harrington Emerson, had introduced a cost-cutting system into railroad shops, and written a book about it. The railroads had applied for a rate raise, and a lawyer, Louis Brandeis, later a Supreme Court justice, reading the book, "*Efficiency in Shop Management*," and appearing for the public, argued that if Emerson's system were adopted, there would be no necessity for higher rates. Today, this sounds like legal logic shopping, but the word got into headlines, and the man in the street, without understanding it, was against it.

So, "efficiency" grew out of a rate case!

No Wizards for Paper Work

IT was up into this old attic that Bell investigators climbed, looking for ways of attacking their accounting costs,

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and their clerical curve. Projecting the latter, it was seen that it would not only climb higher, dollarwise, but that the supply of paper shufflers was diminishing. Just as, today, there would not be one-tenth the number of young women needed to man the enormous manual switchboards had there been no dial equipment, tomorrow there would not be enough clerical hands.

The telephone investigators took a set of symbols into the works, instead of a stop watch or picture camera. These symbols were applied to any piece of paper found going around. There were only a half-dozen of them, but the investigators grow enthusiastic in talking about them.

A PARTICULAR piece of paper would be found in the accounting, commercial, personnel, or other departments. Where did it come from? What was it supposed to do? What was being done with it? Where should it go next? Ought it to be filed, or copies made for other departments, or sent to storage? Could it be destroyed? Pages of writing would be needed to describe this piece of paper, but with

circles, arrows, and Indian signs, it could be charted, its career laid bare at a glance—for those who learned the sign language.

TIME and motion studies were discovered by geniuses, bitten by a bug. They had the handicap of being outsiders, preaching in the wilderness, their gospel ahead of their times, in a different management age. For example, Henry Ford had still to develop the assembly line.

Bell had geniuses, working on the solid state, winning Nobel prizes for transistors, but apparently none for paper work problems. So, a committee attack was made on the problem, and a fortunate thing, to be recommended to paper work reformers in other lines of business.

The start was an "interdepartmental clerical relations committee," in the early 1950's. Its purpose was simpler than its title. There was a steering committee to survey the whole paper jungle, and point out to working committees such areas as might be explored—at first a dozen, and before long several hundreds. These committees were made up of AT&T people

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from different departments, and similar committees were set up in regional companies and results passed around.

BESIDES discovering ways to improve and cheapen paper work, these committees were schools for what became known as "work simplification." As the work went on, more employees served on the committees, became educated in the technique, helped develop better methods, and acquired a spirit of acceptance for new ideas. Nothing was handed down from above, or from outside. The big idea was, as one investigator put it, to work not faster, or harder, but *smarter*.

Strange and surprising situations were hit upon, such as the havoc that unintelligent paper work could wreak in public relations. A regional company became a target for editorial abuse in outlying weekly newspapers. A new hand in the relations department was sent out to talk with the editors. He had been a young country reporter himself. The company advertised in all these papers, and should have had a good press. But it was found that their modest advertising bills were handled in the same slow routine as big equipment bills. The local editor, looking over bills due, to meet his payroll, saw that the telephone company was slowest pay of all, and wrote a stinging editorial. When advertising bills were put on a faster basis, criticism ceased.

When Computers Talk to Each Other

A GREAT mass of paper work is found to be fodder for machines, particularly the electronic computers and memories, so fascinating to the public. Investigators working on computer problems

concede that they are wonderful, but that their shortcomings ought to be taken into account.

Computers cost a lot of money, to buy, and to operate. They have voracious appetites for work, and it takes a large corporation to keep them employed profitably. The conversion of paper work to computer processing may take several years, and employees have to be trained to work with them. Believing that a computer can do anything, take rabbits out of hats, it is often asked to perform such feats, and the cost is generally shocking.

The computer pilot plant recently opened by one regional Bell company gives a glimpse of this field. Five years of preliminary work went into its planning, by forty specialists from different regional companies. Its computer equipment cost \$2 million; people to operate it had to be trained. It will handle billing for 300,000 Philadelphia suburban customers, and later take over payroll, plant, investment, and other work. It is the model for "EDP" (electronic data processing) installations in other Bell companies, and when they are installed they will, of course, talk to each other by the various data-phone services that Bell has to sell. For which a little background from the past may be interesting.

ABOUT the time Frederick Taylor was clocking machine work, a leading life insurance company had a problem of growth. Its policy records were kept in big ledgers. As agents wrote in—there was no long-distance phone service, nor, of course, any airmail—their requests were turned over to clerks, and the clerks stood in long lines to consult the ledgers. The "efficiency expert" was still over the

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horizon, but there were consultants known as "business doctors," called in when business was ailing. Reluctantly, the insurance company called one in.

He was a quiet middle-aged man, who walked around, observing, not telling anybody how to do his job. First, he had the big ledgers torn apart, so many clerks could consult them. Then he had policy information copied on translucent cards, to be blueprinted in a frame holding several dozen. Using what was available in that day, he anticipated punch cards, microfilm, computers.

COMPARE a data-phone setup installed by Bell last year, for a nation-wide insurance group, the largest of its kind at that date. This group sells life, auto, casualty, and other protection, and until its accounting was converted to computers, had the present-day equivalent of the big ledgers for policy information, which was kept in written files at district offices over the country. Besides the expense of keeping records this way, there was a costly lag in distributing it to district offices.



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The group saved a million dollars a year in accounting costs, by putting its data on computers, and using data-phone to let the computers talk to each other. One new unit in the group had never had anything but computer and data-phone facilities.

DATA on a life insurance policy are simple compared to those for an auto policy. For the life policy, there will be the premium record, policy loans, additional insurance, cash surrenders, and claims. For the auto policy there will be car purchases, trade-ins, thefts, accidents, claims, and information bearing on the character of the policyholder as a risk, and especially prompt reports of value to salesmen.

Also, reports and statistics vital to management are available in hours.

Computers store data in their peculiar gobbledygook, from written, taped, punched, diagramed, or practically any kind of conventional accounting records, and transmit them in electronic pulses, or "bits," over telephone lines. At the receiving end these pulses are converted back to telephone messages, teletype, or computer language, at various speeds. A supermarket inventory with 7,000 items, which would run to a 100-foot list, and take hours to telephone, is transmitted in ten minutes.

BESIDES such services as data-phone, Bell is creating business by studying other peoples' paper work problems, as in its hotel studies, where switchboard costs have been eased by telephone installations that enable guests to dial from their rooms, and their calls are automatically charged.

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Memories before Electronics

MORE than one good book could be written about paper work, not the technical kind with which business is now struggling, but popular books, even picture books for youngsters who bring paper work home from school.

From the days when Man hunted for his food, paper work has been a factor in human progress. What parts of the wild horse were allotted to whom when the hunter brought it home to the cave? There was a code for that, and still is in primitive tribes.

There is a creeping glacier of paper work that nobody appears to be doing very much about—the bureaucratic paper work shuffled off by governments, with which citizenry and subjects struggle.

There is another glacier building up in libraries, threatening our science, and technologies, a distinctly separate thing, about which something is being done, but still menacing.

Long before there was any paper, or any way to write records on it, the idea of the modern computer was in use. Knowledge was deposited in human memories, picked for natural ability, organized in monastic orders, passing down legends, laws, scriptures, and literature, from one generation to the next. There was no data-phone then, but these machines talked to one another, correcting slips, keeping the texts pure.

EXCEPT when a new administration came in, and altered texts for its own purpose. A strong, conquering ruler would be succeeded by a nonentity, and his predecessor's achievements were erased, or taken over. Or a rival theology erased an older one. Modern scholars scanning

these old texts make allowance for such dirty work at the crossroads.

For example, there are the Peruvian "quipus," knotted colored strings that were used as memory aids in the Incas socialistic civilization. The Inca subject owned nothing. He was allotted land according to his family, brought his corn, potatoes, and llama wool to a government storehouse, from which he drew food and clothing as needed. The paper work for which, local and imperial, was all done by memory, with quipus.

Did Paper Work Do in the Romans?

IN the history of paper work one absorbing chapter will be devoted to the mounds of clay tablets left by the various Mesopotamian civilizations. The downtown business center of those days was the temple, to which people brought property, to be left in care of the priests. Receipts were written on clay, in the ingenious cuneiform characters. After several thousand years these paper work storages were uncovered, and deciphered. They yield codes of laws, and stories of the flood before Noah, but are largely warehouse receipts for so much grain, so many sheep. About as exciting as a cash register tape of a day's sales. Still, so much like our modern paper work that one might expect to turn up a toll tab or traffic violation ticket.

What did in the Roman empire? Various theories have been advanced, such as the economic weakness of slavery, the rise of Christianity, the noble Romans grew soft. At the height of their grandeur, runs one theory, money was perfected as a tool, loot could be turned into cash, the Romans had a clumsy arithmetic; it would be centuries before the Arabs rediscovered the

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Hindu zero, and their decimal arithmetic. Add to this a typical modern reproach—the Romans were not research-minded. If they had had something like the Bell system they might have survived. But they did last a thousand years!

FROM Gutenberg until wood pulp paper was invented, books were printed on rag paper, and lasted for centuries. With wood pulp, librarians began to fret—would everything on their shelves crumble into dust in fifty years? Newspapers as the source of history would be especially vulnerable. *The New York Times* experimented with various devices for preserving the files, such as transparent coverings for each page, and printed a special library edition on linen paper.

Presently microfilm was developed, giving long life to printed information, and easing the growing demand for shelf space. Then the librarians had a bigger worry, in the mountain range of technical information being elevated in advanced countries. Not long before, the chemist undertaking a project could go to the library and consult the literature himself. His company might have an adequate library. Today, the mass of technical information is so great that librarians and special services have to make short abstracts of articles. These are filed for machine sorting. The researcher puts in an order, gets a bunch of abstracts as clues to articles he may want to read.

Yesterday, there were hardly any technical publications coming from Russia. Today there are hundreds, highly specialized. Our libraries and translating services abstract about 150, translate a few completely for a few customers, but trans-

lators at home in two languages, and with technical backgrounds, are hard to find. We are working on a translating machine, with promise of success. The Russians are reported to have a couple of thousand translators keeping up with some 1,400 of our scientific and technological periodicals.

This May Be Mount Everest

FINALLY, there is undoubtedly an audience waiting for a book on "take home pay," its rise, its altitude compared with other paper work mountain ranges, its creep and onset, its future, and what is being done to alleviate it.

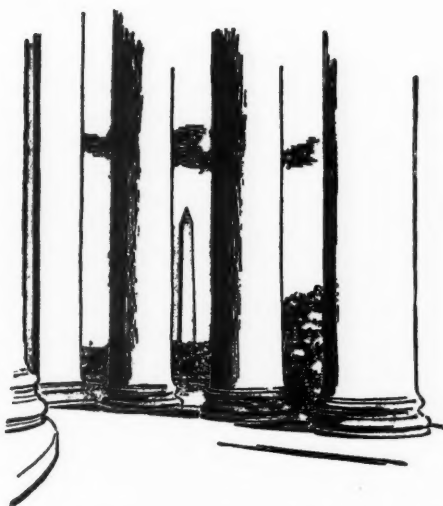
Once a dollar, earned or otherwise, was a hundred cents to be spent by its possessor. Today, let it show its bright, round face, and it is immediately marked off in pie-chart wedges for government and other deductions.

No Bell committees are at work on this kind of paper work, no electronic devices being offered to simplify the burden that is shifted to the citizenry as new laws are passed in the name of simplification. This may be the most menacing mountain range of all.

WHEN the last ice age shut down, Man took refuge in caves. There is a possibility that he may take, this time, to outer space, on a planet still in the hunting phase, with no paper, or any reasonable substitute therefor, nor any way of writing.

However, the space scientists warn that the problems of radiation, distance, and weightlessness, are as nothing compared to the weight of paper work needed to get anything into orbit.

Washington and the Utilities



Settle FPC Chairmanship Problem

A CAPITOL HILL compromise between the administration and congressional Republicans has averted what was expected to be a legal battle over the Federal Power Commission's chairmanship.

Sworn in last month as new members of the FPC were Joseph C. Swidler and Howard V. Morgan, President Kennedy's two appointees. The President had tabbed Swidler as the next chairman, replacing Republican Jerome K. Kuykendall, an Eisenhower appointment.

Republicans contended the President could not depose Kuykendall as chairman before his term expired in June, 1962, since he had been appointed under a previous administration. To make things difficult, GOP Congressmen said they would go to court, if necessary, to block any move to replace Kuykendall with Swidler.

The trouble was quietly resolved the day Swidler and Morgan were sworn in as FPC members. In a press conference that day, Kuykendall said he would continue to serve as chairman until September 1st, and then step down in favor of Swidler. Both Swidler and Kuykendall

refused to say who conceived of the compromise change plan, or whether it originated in the White House. All this, of course, was before the sudden death of Commissioner Frederick L. Stueck at his home in Washington on July 15th. This changes the balance of the commission considerably.

KUYKENDALL's resignation would give President Kennedy five out of five FPC appointments within his first year in the White House. The newest appointee to the commission is Lawrence J. O'Connor, who was named by the President the day after Swidler and Morgan took office.

The Democrats now hold the balance of power on the Federal Power Commission and if Kuykendall resigns before his term expires, President Kennedy will then appoint another of his choices to the commission. The President may therefore defer submitting a reorganization plan for the FPC to Congress and thereby avoid risking similar parliamentary defeat as he did on his reorganization plans for the Federal Communications Commission and the Securities and Exchange Commission.

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One of the first critical tests which the newly composed FPC will face will come when it decides to review the decision of an FPC examiner approving a contract for Shell Oil Company to sell more than 700 billion cubic feet of natural gas to Panhandle Eastern Pipe Line Company over fifteen years at a rather high rate (20 cents a thousand cubic feet).

Outcome of the case may throw new light on the thinking of the new commission members toward producer prices.

Prior to Commissioner Stueck's death there was speculation that Chairman Kuykendall might be joined by Commissioner Stueck and the new Commissioner O'Connor, so that the reputation of the other new appointees, Swidler and Morgan, as being "consumer minded" might be tested on close divisions.

Though O'Connor has not publicly expressed his views on price levels, Swidler and Morgan have expressed an interest in making certain that gas prices are arrived at with the consumer's interest in mind.

OBSERVERS will get another chance to see which way the wind blows if and when the commission reviews another examiner's decision expected next fall over the granting of Snake-Salmon river hydro licenses in the Pacific Northwest. It is expected this will serve as another gauge of all commission members' sentiment on public ownership.

TVA Announces Electricity Rate Cut

THE Tennessee Valley Authority last month announced the lowest electrical power rates in its history. The announcement was made in Washington, D. C., by Brigadier General Herbert D. Vogel, chairman of TVA.

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Vogel met with President Kennedy and thirty Congressmen to make the announcement of the rate schedule which has been designated as the "Norris Centennial Rate," in honor of the late Senator George W. Norris, often called the "father of the TVA." The occasion was on the hundredth anniversary of his birth.

President Kennedy, at the ceremony, called for more TVA development to relieve the depressed Tennessee basin area, where TVA has been operating since 1933. He also recommended that both TVA and the federal government pay greater attention to the tributaries of the Tennessee river, that TVA emphasize its flood-control and soil conservation programs, and that it work with the AEC to develop cheaper power from atomic energy.

The new rates, said Vogel, provide the lowest rates anywhere in the nation for the amount of electricity used in the average home. The new rate schedule may be placed in effect at the option of any of the 155 locally owned distribution systems which serve the 1.5 million customers in the TVA region. Two of these retail distributors, the Decatur, Alabama, municipal system and the Alcorn County Electric Power Association in north Mississippi, have already announced adoption of the new rates. The Alcorn system was the first rural electric co-operative in the TVA area and the first in the nation to undertake an area-wide, as distinct from merely a neighborhood, electric system.

VOGL said that the TVA was gratified at the response of the distributors to the centennial rate, as reflected by the action of Decatur and the Alcorn co-operative in adopting the lower rate schedule. He said:

Throughout the years the distribu-

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tors of TVA power have effectively exercised their responsibility in helping make electricity available to the greatest number of people at the lowest possible cost. In a period of rising costs 77 of the local systems have reduced the rates to their customers below the low rates originally established. We are confident that the response to the Norris centennial rate will be equally gratifying.

Vogel claimed that when adopted by all distributors the centennial rate schedule will provide potential savings to consumers of an additional \$35 million a year. He pointed out that the new rate will affect most significantly customers who use more than 250 kilowatt-hours of electricity a month. For example, a home or farm using 500 kilowatt-hours a month would pay \$4.50 a month or \$54 a year as compared with \$6.90 a month or \$82.80 a year under the highest rate in the TVA service area; and \$5.10 a month or \$61.20 a year under the previous lowest rate schedule.

FOR commercial users, the new rate would mean a reduction of about 8 per cent from the present lowest level. It will affect mainly the smaller commercial establishments, such as stores and small office buildings.

Largely as a result of low rates, residential consumers in the TVA area have been increasing their use of electricity at the rate of about 11 per cent a year, Vogel continued. The average cost of TVA electricity to residential and farm consumers, according to TVA figures, is 0.98 cents a kilowatt-hour, as against the national average of 2.5 cents. This comparison did not adjust, of course, for the tax money interest and other advantages enjoyed by TVA as compared with busi-

ness-managed electric companies. This has always been a sore point when the so-called "yardstick" approach is used in comparing TVA rates with the privately owned companies.

TVA also announced that the new lower electric power rate is a retail rate to consumers and in no way affects the wholesale rate at which TVA sells electricity to the local distributors in its region. Adoption of this new retail rate by the locally owned distribution systems in the TVA region will have no adverse effect on TVA's power revenues, TVA officials stated.

This is the third rate schedule since the TVA was established in 1933, and is the first general reduction since 1944. Under the new schedule, a residential consumer would pay the following rate per kilowatt-hour: two cents on the first 100 kilowatt-hours, one cent for the next 150, four-tenths of a cent for the next 650, and .675 for all over 900 kilowatt-hours.

The authority's power system, with its 12 million kilowatt capacity, is by far the biggest utility in the nation. It is primarily a wholesaler, generating and transmitting electricity to 155 locally owned systems in Tennessee, Alabama, Mississippi, North Carolina, Virginia, and Georgia.

Status of Reorganization Plans

PRESIDENT Kennedy has managed to salvage a few of his reorganization plans for federal regulatory agencies which were submitted to the Congress. The picture had appeared dark after the House had turned thumbs down on the proposal for the Federal Communications Commission, and the Senate had killed the reorganization plan for the SEC.

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The gloom had settled even heavier when the Senate Government Operations Committee refused to favorably recommend the plans for the Federal Trade Commission and Civil Aeronautics Board.

However, the Senate surprised most Washington forecasters by reversing the negative recommendations of the committee and passing both reorganization plans. The Senate's about-face gave the President his first congressional victory on his measures to streamline and update procedures of independent federal agencies. It was believed that the change of sentiment among the Senators was obtained after considerable back-of-scenes maneuvering. The vote on the CAB proposal was 37-33, while the FTC passed by a 47-31 margin.

Since the House had previously passed both plans, the CAB reorganization went into effect July 2nd; the FTC measure became effective July 8th.

THE President's other reorganization plans, which do not seem to have stirred up so much controversy, still had difficulties in passage. All three—for the Federal Maritime Board (FMB), the National Labor Relations Board (NLRB), and Federal Home Loan Bank Board (FHLB)—had been favorably reported out of either the House subcommittee or committee. The NLRB plan although favorably reported by the Government Operations Committee and House floor action was finally defeated in the House by the vote of 231 to 179. It would have gone into effect July 23rd.

The proposals for the FMB and FHLB, which become law August 12th, unless killed in Congress, have both been reported favorably by the Government Operations Subcommittee in the House.

In the Senate, no resolution has been

introduced for the FMB plan and it is pending before that body's Government Operations Committee. The same status applies to the FHLB proposal. Senator Dirksen (Republican, Illinois) then introduced a resolution of disapproval on the President's measure for the NLRB and after committee hearings the adverse House vote occurred on July 20th. Despite the displeasure of Dirksen and other GOP members with the plan, it is expected that the administration was most anxious to reorganize the NLRB. The FHLB plan was expected to muster sufficient bipartisan support to pass, but doubts still exist concerning the ultimate chances of the FMB measure.

Objections to the reorganization plans in general, especially from Republicans and conservative Democrats, had centered around the possibility of the White House grabbing power over the commissions through agency chairmen to control the policy and operation of these agencies. This has especially led to heated debate when the chairmen in question are themselves controversial figures—as in the case of Newton N. Minow of the FCC, who made himself unpopular with many by blasting TV broadcasters for the quality of their programming.

SEVERAL bills have been introduced in the Congress which would accomplish much the same results which the President had asked for in his original reorganization plans. One introduced by Representative Oren Harris (Democrat, Arkansas) will carry out the change in the FCC, while one sponsored by Senators Jacob K. Javits (Republican, New York) and Harrison A. Williams, Jr. (Democrat, New Jersey), would do the same for the SEC. However, it seems certain now that if these two measures pass at all, it will not be this session of Congress.

Telephone and Telegraph



FCC Orders Adjustments of AT&T and Western Union Rates

THE Federal Communications Commission has proposed upward and downward changes in rates charged by the American Telephone and Telegraph Company and Western Union Telegraph Company for private line service. The initial decision of the FCC is subject to comment by interested persons before final action is taken.

The private line service is widely used by such groups as newspapers, individual businessmen, and an assortment of industries. Under such an arrangement private telephone or telegraph lines are for the exclusive use of the customer. The commission has tentatively rejected a plea by the American Newspaper Publishers Association and other press interests which asked that a special reduced rate classification be established for press use.

The commission private line investigation came about, at least in part, from an AT&T increase in private telephone line rates in 1958 which customers complained was not justified. Tentatively the commission has decided to require AT&T to reduce the telephone line service on a formula which would bring its revenues from this service down by about \$1.2 million a year.

At the same time the commission would permit increases in private telegraph line service rates, which would give AT&T about \$2.7 million more per year and would benefit Western Union by some \$750,000 annually.

A LETTER to AT&T by the FCC has been made public which advises that company to go forward promptly with a cost study on its overseas communications services to "reflect the current levels of earnings." The commission indicated in its letter that it has never had sufficient information to make a proper evaluation of earning levels in this particular field.

In a separate but related action the FCC has put Western Electric Company on notice that it appears to be making too much profit from equipment sold to the Bell system. The commission, therefore, advised Western Electric to give immediate consideration to retroactive adjustments in 1960 billings to Bell companies. The FCC noted that Western Electric earnings on Bell sales last year amounted to 10.2 per cent and the commission asserted that this appeared to be excessive.

Phone Rate Experiments

SOUTHERN BELL TELEPHONE & TELEGRAPH COMPANY has filed a petition with the Tennessee Public Service Com-

PUBLIC UTILITIES FORTNIGHTLY

mission proposing a revision of its long-distance toll charges to permit two station-to-station long-distance calls for the price of one person-to-person call. Company officials have said that the purpose of the revision is to make station-to-station calling more attractive by providing for a lower rate for the initial period for most station-to-station calls.

J. M. Brown, commercial manager for Southern Bell, has stated that some increase in charges on person-to-person intrastate calls is required. He noted that the person-to-person type of service is essentially "secretarial." Illustrating the proposed changes Mr. Brown has said that a three-minute station-to-station daytime call from Bristol, Tennessee, to Memphis would be reduced from \$1.65 to \$1.05. However, the proposed person-to-person charge for the same call would double this figure, increasing the cost for such a call to \$2.10. At the present time a person-to-person call costs \$2.40. Mr. Brown has noted that the above example is not necessarily typical and that in some instances person-to-person rates would be increased in order to exactly double the station-to-station rate.

This proposal by Southern Bell is part of a general trend to encourage the station-to-station caller. It is largely the result of the relatively new direct distance dialing facilities that have been installed during the last few years, which significantly reduce the amount of time that must be spent in placing calls.

Unique Night Plan Offered

A "NIGHT PLAN" long-distance telephone service has been offered to home customers by the Northwestern Bell Telephone Company in Waterloo and Cedar Falls, Iowa. The plan, which is the

first of its kind in the nation, would permit one- and two-party line customers to make as many long-distance calls in the state of Iowa as they wish for a flat fee of \$10 per month plus taxes. However, the special rate calls would have to be made between the hours of 9 P.M. and 2 A.M. and they must be placed from the home telephone. Company officials indicate that this service is being offered on an experimental basis and that this particular area was selected because of new long-distance equipment.

Space Communications System Contracts Awarded

THE development of radio signal space age communications moved another step forward last month as the National Aeronautics and Space Administration let a \$450,000 contract with the Douglas Aircraft Corporation aimed at putting into orbit, in 1963, six 14-story-tall balloons to serve all nations as radio mirrors in space. The announcement came only a short while after President Kennedy had asked for results in the space communications satellite system. In a letter to the National Space Council and its chairman, Vice President Johnson, the President asked that steps be taken toward getting working communications satellites into orbit as soon as possible. He also requested a series of studies and policy recommendations to make the most widespread use of such satellites.

Under the contract let to Douglas, that concern will develop the orbital placement technique and engineering design specifications for the six large mirror balloons. The program, called "Project Rebound," will launch three of the balloons at a time, into an orbit between 1,500 and 2,000 miles above the earth, and at equal distances apart.

They will serve as reflectors of radio

TELEPHONE AND TELEGRAPH

signals sent up from the earth and would be designed to allow experimental communications among various countries around the world. NASA plans to have the space craft carry aloft the trio of inflatable aluminum spheres, each weighing 600 pounds, and release them at different points in the orbit.

IN describing the objectives of Project Rebound, the space agency said the spheres would be more rigid and larger than the 100-foot-diameter Echo I satellite. This was America's pioneer in the field of "passive" communication satellites and is still in orbit.

The Bendix Corporation has also announced it has been awarded a \$2.9 million contract for electronic equipment for a shipboard terminal which will operate the "Advent" communications satellite. The "Advent" system will test the feasibility of using satellites as a communications link between surface stations thousands of miles apart, and would use space as a relay point for direct line voice, radio, or teletype communications. The "Advent" satellite, its speed in orbit synchronized with the rotational speed of the earth, would appear to stand still in the sky. Three such satellites, spaced around the earth at an altitude of 22,300 miles, would provide direct line communications to any point in the world.

House Space Committee Studies Satellites

THE House Committee on Science and Astronautics has held a series of investigational sessions on the subject of satellite communications. Representative Fulton (Republican, Pennsylvania) charged that the National Space Coun-

cil is impossible to operate and "hasn't got off the ground."

The NSC, a top space advisory group, is composed of the Vice President, the Secretaries of State and Defense, the chairman of the Atomic Energy Commission, and the head of the National Aeronautics and Space Administration. Representative Fulton contends that the men who make up this council are too busy with other duties and that it was, therefore, "impossible to operate" and was in effect a "vacuum." This particular line of thought came out as the committee heard testimony from James E. Webb, chief of the NASA.

Mr. Webb, however, asserted that the council has great value and that it is working well. Under questioning Mr. Webb admitted that the council had not had any formal meetings since its organization by President Kennedy; however, he asserted that a great deal of work has been accomplished during informal conferences.

It is Mr. Webb's opinion that television audiences in the United States might be able to watch experimental telecasts from Europe in about a year. He told the committee that NASA hopes to launch its first communications satellite—Project Relay—about the middle of 1962. He also forecast that the American Telephone and Telegraph Company may be able to launch a similar one at about the same time. Providing that negotiations with NASA are completed, he stated that the first AT&T experimental satellite would be able to carry 100 telephone conversations or one television program. Mr. Webb told the committee that he believed it would be some time before the satellite communications system would be truly operational.



Financial News and Comment

By OWEN ELY

Two Important Studies on "Growth" Electric Utilities

TRI-CONTINENTAL CORPORATION has issued an 11-page brochure (in convenient "pocket" form) on "Electric Utilities — Relatively Undervalued Growth Stocks," based on a talk by Frederick W. Page, vice president.

Tri-Continental Corporation and its associated mutual funds have for many years devoted special attention to electric utility growth stocks, holdings of utility issues having ranged between 18 and 30 per cent of the total portfolio in recent years—a larger proportion than for most investment companies. Taking 1938 as 100 per cent in each case, by the end of 1960 the Dow-Jones industrial average had quadrupled in value while the Tri-Continental utility portfolio stood at nearly twenty times the original figure. (See chart, page 178.) During the 22-year period there were only five years when the utility portfolio failed to outperform the industrial average; and in only three years did the utility portfolio fail to show some increase in value; appreciation in value averaged 17 per cent annually over the past ten years.

Despite this advance, Mr. Page suggests that "properly selected electric utility common stocks offer investors some of

the best relative values in the current stock market." He admits that many investors (and some Wall Street analysts) feel that utility stocks are now quite fully priced despite the probability of further gains in earnings. Some of the arguments used, together with Mr. Page's rebuttal, are as follows:

1. *THE rate of return for utilities is limited by regulation* and hence growth in net earnings should not equal that of the unregulated industrial growth companies. But this assumption ignores the fact that competition and overcapacity often limit industrial earnings while with the utility there are important factors other than rate of return which contribute toward earnings growth.
2. *INFLATION is bad for utilities.* However, even in the very sharp infla-

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tion of 1919-20 electric utilities were able to show satisfactory gains in earnings and the same was true during the inflation periods after World War II and the Korean War. In France and Germany utilities weathered severe inflation storms better than most industrial companies. The main reason for this good showing is that only two major utility costs are affected by inflation—fuel and wages—which together take about one-third of revenue. Other major costs, such as depreciation, property taxes, and cost of capital, are based on property values. As to fuel expense, most utilities have built-in protection in their rate structures (automatic fuel adjustment clauses). While wage increases are more serious, there are offsetting factors such as increased automation; and consumption of electricity is apt to increase faster during periods of inflation.

3. *RIISING interest costs* are stressed as adverse, but here again there are offsetting factors. In the first place the increase in the interest rate affects only new debt—not the existing debt until it matures. The electric utilities, having largely avoided sinking funds, will not face serious refunding problems for some ten or twenty years, when the low coupon issues sold in the early postwar years begin to mature. Moreover, when interest rates are rising common stocks are likely to sell at higher levels, thus lowering the cost of equity financing.

4. *UTILITY stocks are defensive in character* and should be bought only at times of uncertainty. However, over the past decade the 23 utilities held in the portfolios of Tri-Continental and its affiliates have enjoyed gains in earnings at twice the rate of growth enjoyed by the industrial stocks in the Dow-Jones average. Thus Florida Power & Light's

earnings have grown faster in the past decade than those of Minnesota Mining or Minneapolis Honeywell. Properly selected utilities, Mr. Page concludes, "can give better growth with more certainty and more underlying stability than most of the widely acclaimed and sought after industrial growth stocks."

5. *THE recent growth in earnings has been the result of higher rates of return, but now a maximum has about been reached so that future earnings growth will be slower.* Many growth utilities are not dependent on rising rates of return for their growth characteristics, though of course this factor is helpful. For example, Atlantic City Electric's return on invested capital declined from 6.75 per cent in 1950 to 6.15 per cent in 1960, but nevertheless share earnings increased at a compound rate of 9 per cent a year. While Florida Power & Light's return did increase about 0.75 per cent, this could not possibly account for all the 284 per cent increase in earnings per share during the same period. Moreover, there is no public clamor for lower rates at this time, and it seems doubtful that any state commissions would undertake to lower the rate of return appreciably during a period when the industry is growing rapidly and needs to attract large amounts of capital in order to finance more and better service.

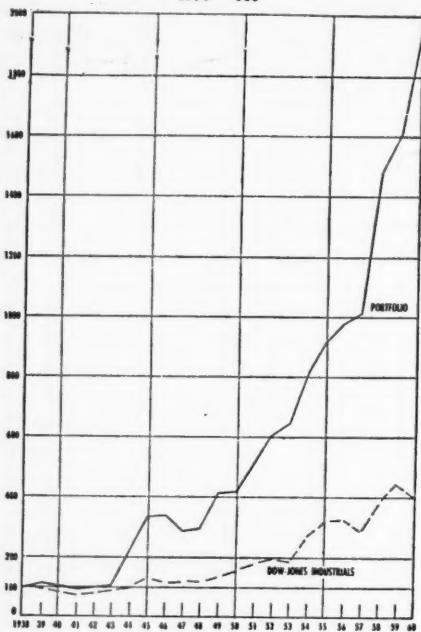
THE growth of utility earnings in the past decade has been accomplished without any effort to increase capital leverage; the lessons of the 1920's are still remembered. But it is always possible that utilities might in future decide to stimulate the growth trend in earnings by increasing capital leverage. The move by some utilities to issue debentures in place of preferred stocks, in order to save taxes and thus increase common earnings (dis-

PUBLIC UTILITIES FORTNIGHTLY

TRI-CONTINENTAL CORPORATION'S UTILITY CHARTS

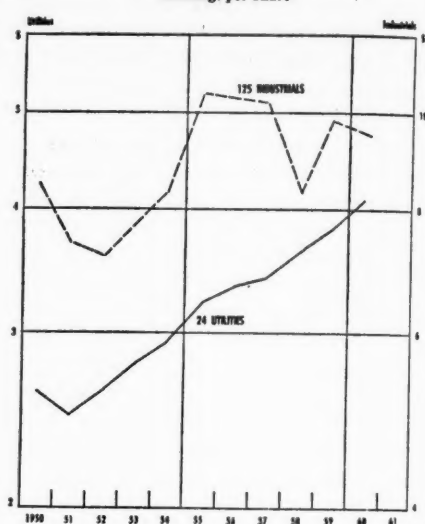
Tri-Continental Utilities Versus Dow-Jones Industrials

1938 = 100



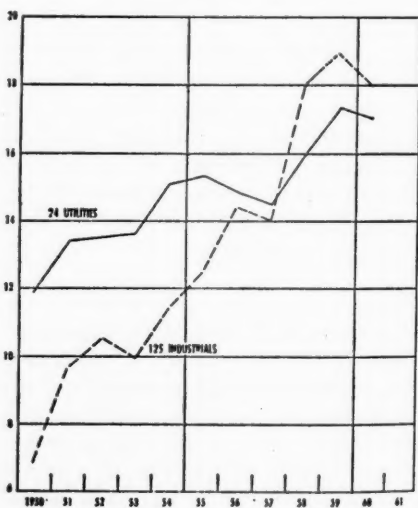
Moody's Common Stocks

Earnings per Share

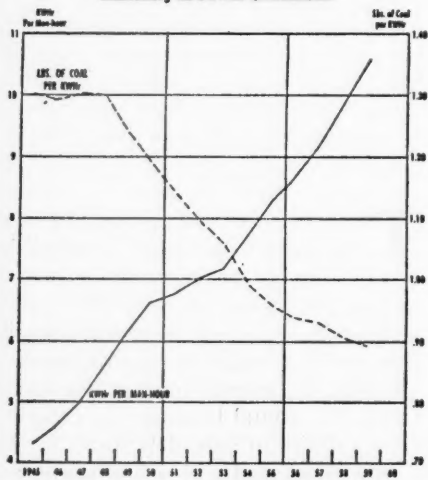


Moody's Common Stocks

Price-Earnings Ratios



Efficiency in Power Generation



FINANCIAL NEWS AND COMMENT

cussed recently in this department), might be considered a step in this direction.

The substantial increase in the generation of internal cash by utilities in recent years has been an important factor in maintaining earnings growth, the Tri-Continental study points out. The sale of common stock at a high premium over book value has been another important element in the gain in earnings.

Regarding the market position of utility stocks, the rise in prices since 1955 has been at least partially supported by better earnings, whereas the rise in industrial stocks has occurred despite lower earnings. As a result, the P-E ratios for industrial stocks have gained much faster than for the utilities, as indicated in the accompanying chart.

Due to the great emphasis on growth in recent years, price-earnings ratios of industrial growth stocks have increased sharply: Minneapolis-Honeywell's P-E ratio has been over 40, IBM at 60, many electronic stocks at 70 or more, and some special favorites even higher. P-E ratios of utility growth stocks are lower. Thus, while the demand for growth stocks may have been carried too far for the industrials, it has perhaps not gone far enough in the utilities, Mr. Page suggests.

ANOTHER important study on growth utilities is the brochure of about 100 pages on "Growth Trends of Public Utilities," published recently by F. S. Smithers & Company. It was prepared by "Trus" Hyde, a partner and a well-known authority on utilities. The principal purpose of this book is to study the variations in growth among different electric utility stocks and to develop better statistical methods to appraise such growth. The text covers only six pages (including a table for compound rates of growth) followed by a page of standardized tables

and chart for each of the important electric utility companies.

In order to discover the true rate of growth of utility earnings, Mr. Hyde considers it necessary to eliminate the effects of changes in both the equity ratio and the earned rate of return, and has developed a formula for doing this. To compensate for a change in the equity ratio and the resulting variation in capital leverage, the earnings of each company have been multiplied by the equity ratio plus a constant of 75. In the case of a company whose equity ratio has increased from 25 to 35 per cent, the index would rise from 100 to 110 and the reported earnings would thus be increased by 10 per cent. This tends to recognize the improved quality of the earnings of a company which has increased its equity ratio, and on the other hand downgrades earnings where a reduction in the equity has occurred. Thus Boston Edison, one of the few utilities which has reduced its equity ratio in recent years, increased its per share earnings 21 per cent in the past five years; but after adjustment for the decline in the equity, the gain is only 13 per cent. (Is not this rule a little strict when applied to a company whose equity ratio has been at high levels—at the end of 1960 Boston Edison's ratio of 44.7 per cent was still well above the industry average of 37 per cent.)

To eliminate fluctuations in earnings due to changes in the rate of return, Mr. Hyde took 1955 as a base year, and each later year's earnings are divided by the 1955 return, plus or minus $1\frac{1}{2}$ times any change in the rate of return. This is designed to eliminate any benefits from increased rate of return, which change is exaggerated by capital leverage. In the charts the growth index of each company is shown in three ways: The black lines

OFFERING OF SECURITIES BY PUBLIC UTILITY COMPANIES
(000 omitted)

OFFERING OF SECURITIES BY PUBLIC UTILITY COMPANIES (000 omitted)										
	January 1 to June 30, 1961					January 1 to June 30, 1960				
	Total	Electric Companies	Gas Companies	Telephone Companies	Other Companies	Total	Electric Companies	Gas Companies	Telephone Companies	Other Companies
Long-Term Debt										
Offered Publicly	\$1,307,600	\$445,000	\$427,600	\$ 435,000	-	\$1,132,000	\$665,500	\$221,500	\$245,000	-
Offered through Subscription	13,860	-	13,860	-	-	3,980	-	3,930	150	-
Offered Privately	101,200	47,000	34,500	16,700	\$3,000	\$3,420	27,650	37,070	15,700	\$3,000
Total	\$1,422,660	\$492,000	\$475,960	\$ 451,700	\$3,000	\$1,219,400	\$693,150	\$262,400	\$260,850	\$3,000
Preferred Stock										
Offered Publicly	\$ 66,000	\$11,000	\$35,000	\$ 20,000	-	\$ 38,800	-	\$ 36,300	\$ 2,500	-
Offered through Subscription	-	-	-	-	-	-	-	-	-	-
Offered Privately	109,350	95,000	4,750	9,600	-	3,917	3,917	6,000	-	-
Total	\$ 175,350	\$106,000	\$39,750	\$ 29,600	-	\$ 134,417	\$89,617	\$ 42,300	\$ 2,500	-
Common Stock										
Offered Publicly	\$ 120,924	\$98,298	\$15,725	\$ 6,901	-	\$ 231,196	\$ 68,296	\$100,181	\$ 62,719	-
Offered through Subscription	1,130,847	116,777	59,017	1,015,053	-	61,049	36,969	753	20,772	\$2,555
Total	\$1,311,771	\$215,075	\$74,742	\$1,021,954	-	\$ 292,245	\$105,265	\$100,934	\$ 83,491	\$2,555
Total Financing	\$2,909,781	\$813,075	\$590,452	\$1,503,254	\$3,000	\$1,646,062	\$888,032	\$405,634	\$346,841	\$5,555
SEGREGATION OF FINANCING - BY PURPOSE										
Total Refunding	\$ 478,499	\$12,542	\$30,380	\$ 435,577	-	\$ 8,355	\$ 3,155	\$ 5,200	-	-
Total Divestment	-	-	-	-	-	-	-	-	-	-
New Money										
Long-Term Debt	\$ 984,738	\$479,458	\$445,580	\$ 56,700	\$3,000	\$1,214,200	\$693,150	\$257,200	\$260,850	\$3,000
Preferred Stock	175,350	106,000	39,750	29,600	-	134,417	68,296	42,300	2,500	-
Common Stock	1,271,194	215,075	74,742	981,377	-	289,090	109,110	100,934	83,491	2,555
Total New Money	\$2,431,282	\$800,533	\$560,072	\$1,067,677	\$3,000	\$1,637,707	\$888,577	\$400,434	\$346,841	\$5,555
Total Financing	\$2,909,781	\$813,075	\$590,452	\$1,503,254	\$3,000	\$1,646,062	\$888,032	\$405,634	\$346,841	\$5,555
SEGREGATION OF FINANCING - BY TYPE										
Competitive Bidding	\$1,178,363	\$461,363	\$282,000	\$ 435,000	-	\$1,055,006	\$686,556	\$141,450	\$227,000	-
Negotiated Sales	\$ 316,161	\$ 92,935	\$196,325	\$ 26,901	-	\$ 346,980	\$ 47,240	\$216,531	\$ 83,219	-
Subscription										
Competitive Bidding	\$ 4,451	\$ 4,451	-	-	-	\$ 27,664	\$ 21,129	\$ 3,830	\$ 150	-
Negotiated Sales	160,600	91,945	\$8,763	\$ 9,992	-	41,282	19,157	753	20,772	\$2,555
Underwriting	1,039,656	20,381	14,114	1,005,161	-	41,282	19,157	753	20,772	\$2,555
Total Subscription	\$1,204,757	\$126,777	\$72,877	\$1,015,053	-	\$ 69,946	\$ 40,886	\$ 4,583	\$ 20,922	\$2,555
Private Sales	\$ 210,550	\$142,000	\$ 39,250	\$ 26,300	\$3,000	\$ 175,120	\$113,350	\$ 43,070	\$ 15,700	\$3,000
Total Financing	\$2,909,781	\$813,075	\$590,452	\$1,503,254	\$3,000	\$1,646,062	\$888,032	\$405,634	\$346,841	\$5,555

Ebasco Services Incorporated, Financial Section, July 11, 1961.

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FINANCIAL NEWS AND COMMENT

PER CENT INCREASE IN SHARE EARNINGS 1955-60

	<i>Earnings As Reported</i>	<i>Earnings Adjusted for Various Factors (See Notes Below)</i>		
		<i>A</i>	<i>A + B</i>	<i>A + B + C</i>
Allegheny Power	16%	20%	31%	31%
Boston Edison	21	13	1	D 1
Cleveland Elec. Illuminating	19	19	47	43
Houston Lighting	30	31	54	—
Minnesota Power & Light	22	20	43	—
Potomac Electric	37	33	15	—
So. California Edison	29	25	28	18
Tampa Electric	80	62	55	53
Washington Water Power	14	2	126	—

A—Equity ratio. B—Rate of return. C—Reserve for deferred taxes (rapid depreciation).



represent the index of earnings weighted only for changes in the equity ratios, while the red lines represent the trend of earnings adjusted for changes in both the equity ratio and the rate of return "and reflect the true growth trends of the individual companies." Any divergence between the two lines reflects the change in the rate of return. In some cases a broken red line is also shown, reflecting a further adjustment by deducting from net plant account the reserve for deferred taxes resulting from use of rapid depreciation.

To illustrate how these adjustments work out, several utility companies, picked at random, showing the percentage growth

in earnings during 1955-60 on the four bases, are shown in the table above.

INSTEAD of using the conventional yield and P-E ratio yardsticks to appraise the relative attractiveness of utility stocks, Mr. Hyde has frequently used (as a rule-of-thumb method) the principle that the yield plus anticipated annual rate of increase in earnings should approximate 10 per cent. Thus a stock whose earnings are expected to increase at the rate of 5 per cent per annum should sell to yield 5 per cent; with a growth rate of 6 per cent it should have a yield of 4 per cent; and with a growth rate of 8 per cent, the yield should drop to 2 per cent.

CURRENT YIELD YARDSTICKS (Standard & Poor's Indexes)

	<i>July 12, 1961</i>	<i>1961 Range</i>		<i>1960 Range</i>	
		<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>
Utility Bonds—AAA	4.51%	4.51%	4.33%	4.72%	4.32%
—AA	4.60	4.62	4.38	4.73	4.36
—A	4.63	4.67	4.56	4.86	4.49
—BBB	4.85	4.85	4.48	5.16	4.56
Preferred Stocks*	4.69	4.78	4.61	4.88	4.57
Utility Common Stocks	3.24	3.62	3.19	4.11	3.61
Yield Spread: AAA Bonds Exceeded Common Stocks	1.27	0.89	1.14	0.61	0.71

*Twelve industrial and two utility issues (high-grade).

PUBLIC UTILITIES FORTNIGHTLY

Actually, however, this rule is somewhat too simple. As the growth rate increases he thinks some recognition should be given to the fact that it is becoming more speculative, and hence the formula has been refined with this in mind. A 66 per cent pay-out is assumed. On this basis, a company with a growth factor of only $3\frac{1}{2}$ per cent should afford a return of $8\frac{1}{2}$ per cent, of which 5 per cent is the yield; converted into terms of price-earnings ratio, the stock should sell at 13.2 times earnings. On the other hand, a company with an $8\frac{1}{2}$ per cent growth rate should afford a $10\frac{3}{4}$ per cent, of which $2\frac{1}{4}$ per cent would be the dividend return; the P-E ratio for this stock would be 29.4 times.

BOTH of these studies furnish valuable new ideas to aid investors and analysts in their efforts to appraise utility growth stocks.

Republic Natural Gas May Sell To Socony Mobil

THE Republic Natural Gas Company of Dallas, Texas, a producer of natural gas and crude oil, recently announced that it was considering the sale of its assets for \$150 million. Socony Mobil Oil Company, Inc., has proposed to acquire the assets of Republic, subject to the reservation and sale by Republic to third parties of oil and gas payments of \$110 million. Socony Mobil would also assume certain of Republic's liabilities. Socony would pay Republic \$40 million in cash.

In its latest fiscal year, which ended on June 30th, Republic reported gas sales averaging more than 187 million cubic feet a day from about 500 gas wells. Oil sales over the same period averaged 8,900 barrels a day from more than 600 oil wells.

Republic has 1.2 million acres of proved or prospective gas and oil land of which 285,000 acres are under production.



FINANCIAL DATA ON ELECTRIC UTILITY STOCKS

Approx. Rev. (Mill.)		7/10/61 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% Incr. in Share Earnings Recent	5-yr. Avg.	Price- Earnings Ratio	Div. Pay- out	Approx. Book Value
\$159	S Allegheny Power System ..	45	\$1.70	3.8%	\$2.35My	1%	3%	19.1	72%	\$18
338	S American Electric Power .	70	1.88c	2.7	2.43My	—	5	28.8	74	24
74	O Arizona Pub. Service	35	.72	2.1	*1.07Ma	* 5	* 8	*32.7	67	19
14	O Arkansas Mo. Power	26	1.08	4.2	1.60Ma	22	5	16.3	68	11
40	S Atlantic City Elec.	46	1.20	2.6	*1.63My	*10	* 9	*28.2	75	12
175	S Baltimore G. & E.	32	1.00	3.1	1.47Ma	4	8	21.8	68	13
9	O Bangor Hydro-Elec.	20	.80	4.0	1.13My	3	6	17.7	71	30
7	O Black Hills P. & L.	39	1.60	4.1	2.56Ap	D2	3	15.2	63	21
124	S Boston Edison	78	3.00	3.8	4.11Ma	8	4	19.0	73	52
34	A Calif. Elec. Power	23	.84	3.7	*1.12Ma	*D2	* 3	*20.5	75	12
25	O Calif. Oreg. Power	56	1.60	2.9	*2.15F	*20	*	*26.0	74	27
11	O Calif. Pac. Util.	22	.90	4.1	1.20My	D16	1	18.3	75	13
82	S Carolina P. & L.	52	1.48	2.8	2.24My	D3	5	23.2	66	21
37	S Central Hudson G. & E. .	33	1.00	3.0	*1.47Ma	* 4	* 8	*22.5	68	14
27	O Central Ill. E. & G.	48	1.76	3.7	2.49My	9	7	19.3	71	16
45	S Cent. Ill. Light	41	1.52	3.7	1.84My	D28	4	22.3	83	19
63	S Cent. Illinois P. S.	68	2.12	3.1	3.03My	5	5	22.4	70	21
22	O Central Louisiana Elec. ...	32	1.00	3.1	1.35Ma	13	7	23.7	74	11
44	O Cent. Maine Power	31	1.52	4.9	*2.05My	*10	*	*15.1	74	25
173	S Cent. & South West	44	1.02	2.3	1.45Ma	6	7	30.4	70	9
13	O Cent. Vermont P. S.	22	1.08	4.9	*1.31My	*D7	* 2	*16.8	82	14
153	S Cincinnati G. & E.	42	1.50	3.6	2.23Ma	4	3	18.8	67	16
10	O Citizens Util. "B"	27	.60	2.2	.83Ma	19	8	32.5	70	6

FINANCIAL NEWS AND COMMENT

Approx. Rev. (Mil.)	(Continued)	7/10/61 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% Incr. in Share Earnings Recent	5-yr. Avg.	Price- Earnings Ratio	Div. Pay- out	Approx. Book Value
136	S Cleve. Elec. Illum.	58	2.00	3.4	2.89Ma	D5	4	20.1	69	25
8	O Colo. Cent. Power	46	.96	2.1	1.35Ma	20	10	34.1	71	12
57	S Columbus & S. O. E.	57	2.00	3.5	2.97My	5	6	19.2	77	25
469	S Commonwealth Edison	88	2.00h	4.7h	3.94My	6	8	22.3	51	35
17	A Community P. S.	37	1.00	2.7	1.54Ma	2	5	24.0	65	13
89	O Conn. Lt. & Power	28	1.20	4.3	*1.47My	—	* 7	*19.0	81	15
656	S Consol. Edison	79	3.00	3.8	*3.78Ma	*D1	* 5	*20.9	79	50
281	S Consumers Power	69	2.60	3.8	3.41My	D12	2	20.2	76	36
96	S Dayton P. & L.	23	.80	3.5	1.16Ma	10	—	20.0	69	31
55	S Delaware P. & L.	51	1.20	2.4	1.68Ma	4	7	30.4	71	14
279	S Detroit Edison	58	2.20	3.8	2.69My	9	2	21.6	82	28
167	S Duke Power	52	1.60	3.1	2.19Ma	—	7	23.7	73	22
105	S Duquesne Light	27	1.18	4.4	*1.51Ma	* 3	* 5	*17.9	78	10
38	O East. Util. Assoc.	42	2.20	5.2	2.57My	D9	4	16.3	87	26
3	O Edison Sault Elec.	18	.90	5.0	1.12Ma	D11	—	16.1	80	10
19	O El Paso Electric	28	.62	2.2	.85My	—	8	32.9	73	12
13	S Empire Dist. Elec.	42	1.52	3.6	2.02Ma	7	7	20.8	75	17
68	S Florida Power Corp.	46	.88	1.9	1.36Ma	15	11	33.8	65	11
173	S Florida P. & L.	75	1.00	1.3	2.09Ma	4	15	35.9	48	17
4	O Florida Pub. Util.	24	.72d	3.0	1.32Ma	D1	7	18.2	55	11
205	S General Pub. Util.	31	1.16	3.7	*1.63Ma	—	* 3	*19.0	71	15
7	O Green Mt. Power	18	.80	4.4	.94Ma	9	4	19.1	85	13
86	S Gulf States Util.	40	1.00	2.5	1.27My	D8	5	31.5	79	13
54	A Hartford Electric	74	3.00	4.1	*3.75Ma	* 2	NC	*19.7	80	43
31	O Hawaiian Electric	83	2.50	3.0	3.46Ma	2	5	24.0	72	37
116	S Houston L. & P.	107	1.60	1.5	3.29My	6	5	32.5	49	24
37	S Idaho Power	33	1.00	3.0	1.38Ma	13	6	23.9	72	29
110	S Illinois Power	72	2.20	3.1	2.98My	4	11	24.2	74	20
56	S Indianapolis P. & L.	60	1.90	3.2	2.76My	8	7	21.7	68	19
34	S Interstate Power	24	.95	4.0	1.20Ma	3	4	20.0	79	9
53	S Iowa Elec. L. & P.	48	1.80	3.8	2.66My	2	5	18.0	68	21
51	S Iowa-Illinois G. & E.	46	1.90	4.1	2.61My	D5	2	17.6	73	20
51	S Iowa P. & L.	41	1.60	3.9	2.13Ma	D8	4	19.3	75	20
42	O Iowa Public Service	23	.88	3.8	1.36My	7	5	16.9	65	11
17	O Iowa Southern Util.	34	1.48	4.4	2.07My	D5	4	16.4	71	21
68	S Kansas City P. & L.	73	2.32	3.2	3.36My	5	6	21.7	69	31
37	S Kansas G. & E.	62	1.68	2.7	2.88My	5	8	21.5	58	23
57	S Kansas P. & L.	45	1.48	3.3	2.43Ma	2	7	18.5	61	19
49	O Kentucky Util.	41	1.60	3.9	2.72Ma	—	6	18.1	59	22
8	O Lake Superior D. P.	28	1.28	4.6	1.83Ma	7	4	15.3	70	18
145	S Long Island Ltg.	53	1.50	2.8	*2.21Ma	* 6	* 8	*24.0	68	20
71	S Louisville G. & E.	59	1.52	2.6	2.66Ma	2	8	22.2	57	22
13	O Madison G. & E.	33	1.00	3.0	2.09Ma	11	3	15.8	48	21
5	A Maine Pub. Service (o) ..	21	.95	4.5	1.12Ap	D3	4	18.8	85	14
8	O Michigan G. & E.	88	2.00e	5.6e	5.54Ma	5	8	15.9	36	29
215	S Middle South Util.	38	1.06	2.8	1.56My	15	9	24.4	68	14
35	S Minn. P. & L.	42	1.60	3.8	2.46My	11	4	17.1	65	21
16	S Missouri P. S.	23	.72f	5.1f	1.05My	D8	5	21.9	68	8
9	O Missouri Util. (l)	25	.96	3.8	1.42Ma	26	2	17.6	68	19
49	S Montana Power	35	1.12	3.2	*1.50Ma	*13	* 8	*23.3	75	10
9	O Nevada Power	39	.84m	2.2	1.53My	15	5	25.5	55	15
180	S New England Elec.	25	1.08	4.3	1.33Ma	D1	2	18.8	81	15
55	O New England G. & E.	30	1.24	4.1	1.85Ma	8	8	16.2	67	18
110	S N. Y. State E. & G.	38	1.30	3.4	*2.01My	*12	* 8	*18.9	65	19
299	S Niagara Mohawk Power ..	46	1.80	3.9	*2.29Ap	* 3	—	*15.7	79	23
124	O Northern Indiana P. S.	39	1.20	3.1	1.76Ma	9	4	22.2	68	28
183	S Northern Sts. Power	33	1.18	3.6	1.50Ma	5	5	22.0	79	12
13	O Northwestern P. S.	26	1.20	4.6	1.67Ma	—	5	15.6	66	13
160	S Ohio Edison	41	1.48	3.6	2.13My	3	4	19.2	69	17
62	S Oklahoma G. & E.	43	1.20	2.8	1.53My	10	5	28.1	78	11
31	S Orange & Rockland Util. ..	52	1.20	2.3	*1.72Ma	* 4	*11	*30.2	70	14
20	O Otter Tail Power	38	1.80	4.7	2.35Ma	D3	1	16.2	75	25
648	S Pacific G. & E.	77	2.80	3.6	*4.30Ma	*13	* 5	*17.9	65	42
63	O Pacific P. & L.	47	1.80	3.8	*2.20My	*16	* 6	*21.4	81	20
142	S Penn. P. & L.	30	1.25	4.1	1.72My	D2	3	17.4	73	13

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Approx. Rev. (Mill.)	(Continued)	7/10/61 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% Incr. in Share Earnings Recent	Share Earnings 3-yr. Avg.	Price- Earnings Ratio	Div. Pay- out	Approx. Book Value
273 S	Phila. Electric	31	1.20	3.9	*1.46My	*D1	* 4	*21.2	82	28
45 O	Portland Gen. Elec.	42	1.52	3.6	2.16My	13	5	19.4	70	19
89 S	Potomac Elec. Power	42	1.44	3.4	*2.00Ma	* 6	* 6	*21.0	72	20
113 S	Pub. Serv. of Colo.	79	2.10m	2.6	*3.24Ma	*19	* 5	*24.4	65	26
394 S	Pub. Serv. E. & G.	54	2.00	3.7	*3.01Ma	*22	* 3	*17.9	67	28
92 S	Pub. Serv. of Ind.	61	2.20	3.6	2.56Ap	D6	2	23.8	86	28
35 O	Pub. Serv. of N. H.	23	1.04	4.5	1.41My	3	2	16.3	74	14
20 O	Pub. Serv. of N. M.	49	1.00	2.0	1.59Ma	6	11	30.8	64	13
37 S	Puget Sound P. & L.	40	1.56	3.9	*1.94Ma	*D8	* 8	*20.6	80	23
76 S	Rochester G. & E.	49	1.80b	6.7b	*3.00Ma	*D5	* 8	*16.3	60	32
11 S	St. Joseph L. & P.	38	1.60	4.2	2.18Ma	D5	8	17.4	73	19
81 S	San Diego G. & E.	32	1.20	3.8	1.63My	D13	9	19.6	74	19
12 O	Savannah E. & P.	32	1.12	3.5	1.40Ap	14	4	22.9	80	14
14 O	Sierra Pacific Pr.	29	.88	3.0	1.04My	D17	12	27.9	85	9
306 S	So. Calif. Edison	70	2.60k	3.7	*4.45Ma	* 1	* 7	*15.5	58	44
56 S	So. Carolina E. & G.	52	1.50	2.9	2.05Ma	8	6	25.3	73	19
297 S	Southern Co.	53	1.50	2.8	1.98My	—	8	26.8	76	17
22 S	So. Indiana G. & E.	43	1.70	4.0	2.62My	1	3	16.4	65	23
4 O	Southwestern E. S.	21	.76	3.6	1.04My	4	5	20.2	73	8
53 S	Southwestern P. S.	29	.88	3.0	1.10My	D1	6	26.4	80	7
41 A	Tampa Electric	44	.72	1.6	1.20My	10	12	35.8	60	11
202 S	Texas Util.	99	2.08	2.1	3.16My	7	9	31.3	66	22
49 S	Toledo Edison	21	.70	3.3	1.10Ma	1	—	19.0	64	10
20 O	Tucson G. E. L. & P.	42	.80	1.9	1.06Ma	D15	8	39.6	75	9
159 S	Union Electric	46	1.80	3.9	*2.13Ma	* 6	* 5	*21.6	84	18
40 O	United Illuminating	32	1.40	4.4	*1.69My	*D3	* 2	*18.9	83	16
8 O	Upper Peninsula Pr.	36	1.70	4.7	2.31Ma	20	—	15.6	74	20
53 S	Utah Power & Light	34	1.32	3.9	1.81My	D3	4	18.8	73	20
161 S	Virginia E. & P.	59	1.30	2.2	*1.93My	* 8	* 8	*30.6	67	16
40 S	Wash. Water Pr.	51	2.00	3.9	*2.51My	* 6	* 3	*20.3	80	29
87 O	West Penn Power	70	3.20	4.6	3.65Ma	4	2	19.2	88	26
14 O	Western Lt. & Tel.	31	1.20	3.9	1.78My	8	6	17.4	67	29
34 O	Western Mass. Cos.	26	1.20	4.6	1.58My	D5	1	16.5	76	19
141 S	Wisc. El. Pr. (Cons.)	47	1.80	3.8	2.74Ma	D4	7	17.2	66	29
48 O	Wisconsin P. & L.	38	1.48	3.9	2.35Ma	—	7	16.2	63	21
48 S	Wisconsin P. S.	33	1.30	3.9	2.05Ma	4	4	16.1	63	18
Averages				3.5%		4%	6%	21.7	70%	
Foreign Companies										
\$127 S	American & Foreign Pr. ..	11	\$.50	4.6%	\$1.41Ma	83%	0%	7.8	36%	\$33
161 A	Brazilian Traction	5	—	—	.98De	70	—	5.1	—	29
103 A	British Col. Power	33	1.60	4.8	2.37De	D5	3	13.9	67	32
26 O	Calgary Power	29	.40	1.4	1.09De	14	13	26.6	37	6
19 A	Gatineau Power	36	1.60	4.4	2.25De	13	2	16.0	71	22
17 A	Quebec Power	35	1.60	4.6	2.53De	8	9	13.8	63	27
83 A	Shawinigan Water & Power	25	.80	3.2	1.54De	6	6	16.2	52	19

*Deferred taxes resulting from liberalized depreciation are not normalized. If they had been normalized the price-earnings ratio would be higher, and the rate of increase in share earnings would be smaller. D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. b—Also 3 per cent stock dividend (paid January 25, 1961) included in the yield; similar dividends are paid annually, representing balance of earnings. c—Also 2½ per cent stock dividend January 10, 1961. d—Also 2 per cent stock dividend May 1, 1961. e—Also regular annual 3.3 per cent stock dividend (3 per cent in previous years), included in the yield. f—Also regular stock dividend of one-half per cent quarterly, included in yield (paid since 1956). h—Also 2.4 per cent stock dividend December 1, 1960, included in yield; stock dividends are paid annually, reflecting balance of earnings. j—The rate of increase would be 12 per cent if the present number of shares had been used to compute share earnings of past years, instead of using the number of shares actually outstanding at the end of each year. k—Also 4 per cent stock dividend February 24, 1961. l—Adjusted for 50 per cent stock dividend June 5, 1961. m—Fifty per cent stock dividend payable January 18, 1961—cash dividend on new stock 84 cents. n—Also 5 per cent stock dividend February 17, 1961. o—Adjusted for 13 for 10 stock split record June 27, 1961.

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What Others Think

Employee Publications and the Utility Industry

RECENTLY Donald D. Hoover, president of Bozell & Jacobs, Inc., of New York city, spoke to the utilities session of the International Council of Industrial Editors, meeting in Chicago. As his topic, the president of the well-known public relations and advertising company spoke on the importance of maintaining communications with employees in the various utility companies.

The utility publication of today, Mr. Hoover said, is truly professional in its coverage. The gossip sheet that was common as a company publication a few years ago has just about disappeared and has been replaced by publications that cover company news, problems, policies, and future plans. In these lines of coverage Mr. Hoover asserted that the utility publications tend to be ahead of other industries. However, he stated that the publications issued by utilities to their employees tend to be behind in the reporting of industry-wide developments and events affecting the national economy.

Traditionally, Mr. Hoover stated the reasons given for going light on these two areas are: (1) Employees are not interested in news about industry and the nation's economy. (2) The average employee would find such matters difficult to comprehend. (3) It is difficult to put

stories about industry and economy into meaningful terms. (4) Such information does not belong in an employee publication.

Mr. Hoover stressed that management, personnel directors, supervisors, and editors cannot afford to guess where utility employees' interest lies. He indicated that surveys have proven that employees want more coverage of industry and economy despite the traditional reasons that exclude such information from the majority of industry publications.

THE reluctance of many utility editors to take an active interest in the factors which can mean life or death to their companies can have dire results, Mr. Hoover believes. He notes that an uninformed employee is unable to pass on facts to friends and neighbors outside of the company, and these friends and neighbors, in turn, have no sound basis on which to form judgments of the issues and make well-informed decisions at the voting booth. Negative impressions of the utility industry do exist and he stated:

... It doesn't take a psychiatric expert to identify a faulty public image as a major contributor to the foremost electric problem: the relentless—and increasing—pressure of government en-

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croachment, achieved through such devices as the preference clause, tax inequality, building of superco-ops and extension of REA "farm" co-operatives into suburban and industrial territories, insistence on government duplication of existing power lines, and renewed advocacy of federal construction of a nation-wide "power grid"—which in substance already is present in the interconnected transmission systems of investor-owned electric companies.

Mr. Hoover noted that there are a good many sources that editors could use to increase the amount of information in their industrial publications which would relate to industrial developments and the economic fields. He indicated that editors will find top management ready to give the backing needed if plans are sufficiently comprehensive. Management, he stated, is aware that employee publications can make a real contribution to the interests of the company, the industry, and the nation.

Congress Splits on Hanford Electric Plant

THE House of Representatives last month killed a measure, backed by the Kennedy administration, which would have provided \$95 million for construction of electric generating facilities at the nuclear reactor plant now under construction at Hanford, Washington.

A few days after the House action, the Senate, by a 54-36 roll call vote, voted to go ahead with the Hanford project by rejecting Senator Hickenlooper's (Republican, Iowa) motion to strike the power plan from the AEC authorization bill.

The House knocked out this one section of the AEC authorization bill and passed the remainder of the \$500 million bill, which includes authorization of construction by the AEC of a \$114 million research linear electron accelerator at Stanford University, Stanford, California.

Republicans—supported by southern Democrats, coal-producing states (such as Pennsylvania), and New England—succeeded in passing the amendment which killed the Hanford project by a 176-140 vote.

The Democrats had made no attempt to overturn the earlier House vote by calling for a roll call vote. They had rather

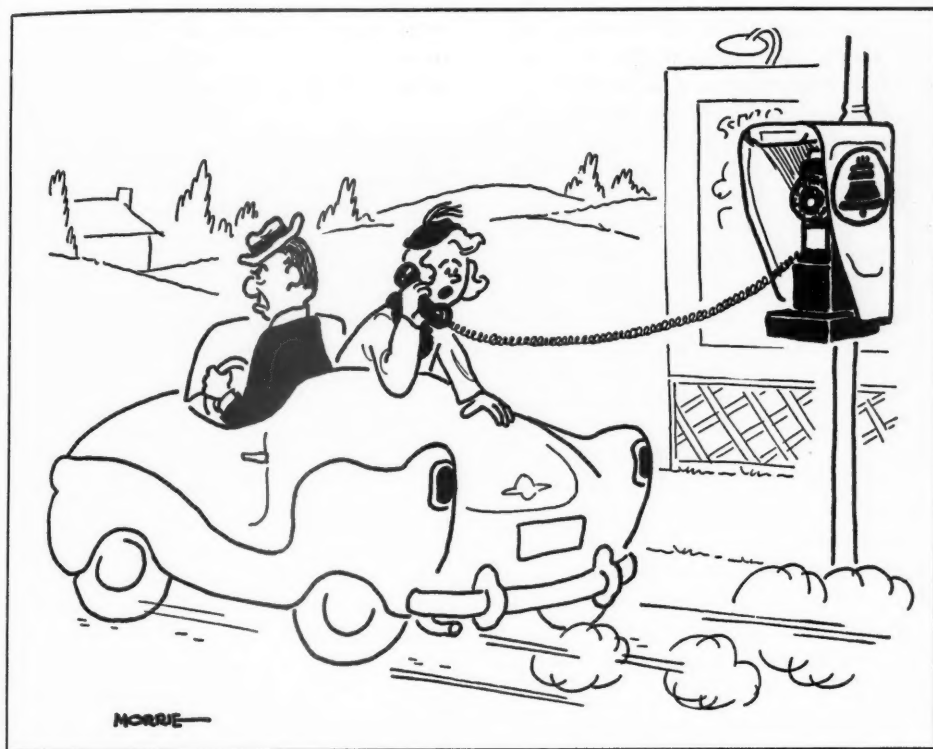
relied on mustering sufficient support in the Senate to retain the Hanford plan, and eliminate the Stanford measure. Then, in a House-Senate conference, the Democrats will hope for a compromise whereby both projects will be restored to the bill.

THE Hanford measure had become controversial because of several reasons—the most overwhelming one that it sharply pointed out the battle which has been raging between public *versus* investor-owned utilities.

Backers of freedom for investor-owned companies fought the Hanford proposal on the grounds that it was probably the biggest step, since the establishment of the TVA, of putting the federal government in control of a large deposit of electric power. The problem had been greatly intensified by rumors coming out of the Interior Department, which told of the possibility of linking the TVA with the Bonneville Power Authority (BPA) in Washington. The electric power, which the government hoped to realize from the Hanford reactor, would be tied in with BPA power.

This transmission of power from Han-

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"GUESS I'LL HAVE TO HANG UP NOW, HELEN!"

ford to Bonneville, through a \$266 million 500,000-volt transmission line, had also ruffled a few feathers among owners of private utilities in the West. The state of California recently employed an engineering firm, H. Zinder & Associates, to make a study of a proposed power "intertie" between the Pacific Northwest and California. This is supposed to be confined to the engineering aspects rather than who should build or operate the line. Nevertheless, the resulting report has become quite controversial.

Such a program was actually started during the Truman administration by the Department of the Interior under former Secretary Chapman. Construction plans were halted when it was found depart-

mental officials had defied Congress which had provided no authorization for the project.

In the last couple of years of the Eisenhower administration, the BPA sought to market some of its surplus secondary power in California. This was when BPA revenue began to fall below expectations. The BPA encouraged a modest hookup, to be built at private expense, to accommodate the sale of surplus energy under normal contracts. This plan also met defeat in the Congress.

THE Zinder report had been the subject of increasing study and argument. Nothing like what it proposes had ever been before attempted in this coun-

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try. It was known that the Kennedy administration was partial to the construction of such interregional power hookups. The government had the backing of various organizations in the public power movement that want to extend the principle of federal generation and distribution of electric power, with preference and priority going to public power agencies.

Most privately owned utilities can see advantages in power pooling, but they have fears over possible further government encroachment into their business. The proposal for a California intertie was mixed up not only with the government and investor-owned power disputes, but was also complicated by the Kennedy administration's plan to convert the new Hanford plutonium reactor into a commercial electric power producer.

Many in the Pacific Northwest did not like to see their power going off to other states to the south, especially California. They are fighting any proposal to construct a giant power intertie which would export, in large volumes, electrical energy from the Columbia river system. Backers of the bill say that legal precautions will be taken to see that citizens of the Columbia river region will have first call on the power produced there.

THE opposition counters that once a federally controlled power intertie is constructed into the power thirsty Southwest region, it will likely be continued to be used to export Columbia river power for a prolonged period of time. Opponents of the line also say that even though Congress provides initial protection to the Northwest, it can amend the laws, later on, so that Columbia river power would permanently serve other areas. This is particularly true, they say, if citizens from other populous areas can

exert more influence on Congress than those in control of the administrative branch of the government.

THEY also say that a multimillion-dollar giant power intertie program connecting the Northwest with the Southwest region, if owned and controlled by the federal government and if carried forward and put into effect, would be a big step towards the nationalization of the electric energy industry, and through it the control of the economy of the regions it serves. Opponents of the federally owned intertie point to the fact that many high-voltage power interties have already been constructed through the combined effort of private enterprise and established government agencies. Others are being planned whereby pooling arrangements permit distributors to operate more efficiently.

An example of this is the 400-mile network of extrahigh-voltage transmission lines, linking an eight-state area in the South which will be constructed by a group of investor-owned utilities. Sherman R. Knapp, former president of the Edison Electric Institute, announced that the transmission grid would interconnect power systems in Arkansas, Kansas, Louisiana, Mississippi, Missouri, Nebraska, Oklahoma, and Texas. The system would cost more than \$300 million and is designed for initial operation at 345,000 volts. Provisions would be included for possible enlargement to 500,000 volts when needed. By contrast, the regular high-tension lines common to country areas operate at 132,000 volts.

Knapp said that the line would be six times greater in electric power capacity than any other transmission line now operating in the South. Initial construction of a 30-mile section of the line is expected this year.

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It is pointed out that class preference laws, governing the use of federal power, complicate pooling arrangements and interties where a river power system is opened to class preference users in other regions throughout the nation. This in itself creates another movement toward nationalization of the industry because of the heavy subsidies given to federally generated power production and distribution.

THE possibility of a link between the Hanford-BPA system and the TVA raised many eyebrows. One report out of Washington said the administration had ordered a study of the feasibility of linking the power facilities of the TVA with those of the BPA. High-powered transmission lines capable of transmitting large blocks of power the 2,000-mile distance would be used. The theory behind the proposal, one source said, is that it would provide a means for government and investor-owned power producers to shift large blocks of surplus power to heavily populated areas when needed, as in time of power shortages.

Shortly thereafter, the Interior Department came out with a guarded denial of the rumor. The department said that the only such study now under way is checking the feasibility of linking the Pacific Northwest and the Pacific Southwest with the transmission line mentioned previously. The California intertie proposal also involves the possible export of electricity from British Columbia when new Canadian Columbia river projects are constructed, under terms of the treaty recently ratified by the United States but awaiting action by the Canadian Parliament and the government of British Columbia.

Howard Green, Minister of External Affairs and No. 2 man in the Canadian

government, declared there was a possibility of collapse of the planned Columbia river projects in Canada. There are numerous areas of dispute in Canada, despite the fact the Canadians have been guaranteed by the United States government a 50-50 split of the power benefits in this country resulting from the Canadian storage projects. In view of the complex situations across the international boundary, it would be folly for the United States to bank on new electric power resulting from Canadian Columbia projects until, at least, the treaty is ratified and construction work assured.

Despite the delays on the Canadian side, some engineers have no difficulty in visualizing a high-powered intertie reaching from the Peace river country and the Yukon to lower California and the Colorado river basin. The key link would be the American transmission lines connecting the BPA region (which includes the Hanford plant) with northern California.

OPPOSITION to the transmission of BPA power to the Southwest was expressed recently by Francis Pearson, chairman of the Washington Public Service Commission. He said he preferred to see Bonneville power remain in the Pacific Northwest even though it might mean a slight increase in rates for a time. He indicated that the overall benefits to Washington state would be greater. Pearson also said: "Our community of interest is with British Columbia and the development of the Columbia river with Canada," not with exporting that power the Northwest does have to the Southwest.

"The Southwest has everything to take but nothing to give, as far as natural resources are concerned," he added.

David Sentner, chief of the Hearst Headline Service Washington Bureau,

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reported in his column that the major electric utility systems on the West coast will soon announce details of a billion-dollar North-South transmission and pooling program, which would be in direct opposition to the administration's plans to set up a federally operated transmission system. Sentner said the impact of this intertie by investor-owned utilities would be so great that the AEC authorization bill for the Hanford plant was cooked up in an attempt to forestall this billion-dollar private investment plan. The private company setup would operate at the highest voltage in the country, around half a million volts. It would stretch from the vicinity of Los Angeles to connect with the 17-year-old mixed ownership Northwest power pool which serves the Columbia basin. It is contemplated that the entire West coast electric industry will be operated in one mixed ownership pool, says Sentner.

Two months ago, Secretary of the Interior Udall named a five-man task force to study the California intertie question. The chairman of the group is the new BPA Administrator, Charles Luce. Two other BPA men are on the board, along with a California Bureau of Reclamation director and an Interior Department engineer.

OPPONENTS of the public power drive have accused Udall, and his appointees in the Interior Department, of being more eager to socialize electric power than was his predecessor during the Roosevelt days, Harold Ickes. Much of the pressure for a federal intertie comes from the government power agencies and their lobbyists, and they are counting on Udall to expand the functions of the federal government in electric generation and distribution, according to investor-owned utilities.

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During the debate on the AEC bill in Congress, it was charged that the present administration's trend toward federal control is dangerous. Recent statements by Udall and his lieutenants that there must be a "national power grid" came under attack, since investor-owned utilities feel a national system controlled by the government will put them out of business.

The Hanford plant authorization bill battle was the first test of the federal government power lobby, subsequent to the political election of last fall when the Democratic ticket, pledged to all-out support of government power expansion, lost every western state involved except Nevada and New Mexico.

One of the friction points sparking part of the power issue fight in Congress arose out of the \$200 million question of which agencies, private or federal, shall build a high-voltage, 1,800-mile transmission line system from four new federal power and irrigation dams on the Upper Colorado river to federal preference customers in Arizona, New Mexico, Colorado, Utah, and Wyoming.

Supporters of investor-owned enterprise contend that the federal investment could be reduced to \$64 million by using private utility lines, a saving of \$136 million of federal deficit spending. They add that during the 86-year life of the project the private lines would yield \$284 million in taxes.

One of the first items attacked by the GOP, and upheld by the Democrats, in the opening days of debate on the AEC's authorization bill, was the cost and worth of adding electric generating facilities at the Hanford plant.

THE administration's backers said that distribution of electric power from Hanford would give the United States

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the world's largest atomic generating plant. Plutonium production generates great quantities of heat and they said it was a pity to dissipate this heat when it could generate steam for electric power. Moreover, it was explained, the BPA could use this power in a "critical water year."

If built, the \$60 million Hanford facility would have been the first steam plant in the Bonneville power empire. It would have created the first vast bloc of electric power generated by steam outside of the Tennessee valley. "Vast" is not an exaggeration since the plant would have produced 700,000 kilowatts, or as much electric power as one and a half dams the size of Bonneville.

President Kennedy had said that the Hanford atomic installation would itself be requiring half the proposed capacity within a few years, thus making the project ultimately self-liquidating. He said its technical and economic feasibility had been attested to by the AEC, which would have built it, and the BPA, which would have marketed the electricity. These recommendations were bulwarked with technical studies by the General Electric Company and economic studies by the Federal Power Commission.

PUBLIC power officials said there was no question involved of whether private enterprise rather than the federal government should produce the electricity, for the investor-owned utilities have never responded to an invitation by former AEC Chairman McCone to do so. They added that either the generated heat would be put into productive use by the government, or it would go to waste as the heat from the first, smaller plutonium reactor has been wasted into the Columbia river.

Senator Jackson (Democrat, Washing-

ton) said during the House debate that the cost of producing plutonium at the Hanford site could be cut by one-third if electric power-generating facilities are added. If converted at a cost of \$95 million, he said, the reactor would produce up to 900,000 kilowatts of electricity. Though he foresaw a "hard floor fight" in both the House and Senate, Jackson predicted the measure would pass the Congress.

REPRESENTATIVE Hosmer (Republican, California), a leader in the opposition to the Hanford expansion, hit strongly at the administration's proposals. He said the reactor there is already obsolescent and to use it at the taxpayers' expense would discourage private industry from building better reactors. He also stated that the original reason for the plutonium-producing Hanford plant may disappear. The supply of plutonium may presently exceed the demand. When it does, if it does, the reactor would have to continue operations at great cost to heat the boilers to produce the steam.

Besides Hosmer, other GOP leaders who launched the attack on the appropriations bill were Representatives Avery (Republican, Kansas) and Van Zandt (Republican, Pennsylvania).

Avery compared the proposal with the creation of the TVA, which he termed a "monstrosity" authorized through "distorted logic." "What we're going to decide," he said, "is whether the AEC through this general authorization is going to become engaged in the production of public power or whether that is to be left to private power."

Van Zandt, one of the most outspoken critics of the measure, introduced the amendment to knock the generating facilities authorization out of the overall AEC bill. Representative Bow (Republican,

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reported in his column that the major electric utility systems on the West coast will soon announce details of a billion-dollar North-South transmission and pooling program, which would be in direct opposition to the administration's plans to set up a federally operated transmission system. Sentner said the impact of this intertie by investor-owned utilities would be so great that the AEC authorization bill for the Hanford plant was cooked up in an attempt to forestall this billion-dollar private investment plan. The private company setup would operate at the highest voltage in the country, around half a million volts. It would stretch from the vicinity of Los Angeles to connect with the 17-year-old mixed ownership Northwest power pool which serves the Columbia basin. It is contemplated that the entire West coast electric industry will be operated in one mixed ownership pool, says Sentner.

Two months ago, Secretary of the Interior Udall named a five-man task force to study the California intertie question. The chairman of the group is the new BPA Administrator, Charles Luce. Two other BPA men are on the board, along with a California Bureau of Reclamation director and an Interior Department engineer.

OPPONENTS of the public power drive have accused Udall, and his appointees in the Interior Department, of being more eager to socialize electric power than was his predecessor during the Roosevelt days, Harold Ickes. Much of the pressure for a federal intertie comes from the government power agencies and their lobbyists, and they are counting on Udall to expand the functions of the federal government in electric generation and distribution, according to investor-owned utilities.

During the debate on the AEC bill in Congress, it was charged that the present administration's trend toward federal control is dangerous. Recent statements by Udall and his lieutenants that there must be a "national power grid" came under attack, since investor-owned utilities feel a national system controlled by the government will put them out of business.

The Hanford plant authorization bill battle was the first test of the federal government power lobby, subsequent to the political election of last fall when the Democratic ticket, pledged to all-out support of government power expansion, lost every western state involved except Nevada and New Mexico.

One of the friction points sparking part of the power issue fight in Congress arose out of the \$200 million question of which agencies, private or federal, shall build a high-voltage, 1,800-mile transmission line system from four new federal power and irrigation dams on the Upper Colorado river to federal preference customers in Arizona, New Mexico, Colorado, Utah, and Wyoming.

Supporters of investor-owned enterprise contend that the federal investment could be reduced to \$64 million by using private utility lines, a saving of \$136 million of federal deficit spending. They add that during the 86-year life of the project the private lines would yield \$284 million in taxes.

One of the first items attacked by the GOP, and upheld by the Democrats, in the opening days of debate on the AEC's authorization bill, was the cost and worth of adding electric generating facilities at the Hanford plant.

THE administration's backers said that distribution of electric power from Hanford would give the United States

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the world's largest atomic generating plant. Plutonium production generates great quantities of heat and they said it was a pity to dissipate this heat when it could generate steam for electric power. Moreover, it was explained, the BPA could use this power in a "critical water year."

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PUBLIC UTILITIES FORTNIGHTLY

Ohio) said that the public power bill would require Ohio to "pay part of the light bill for several hundred thousand

Americans in the far West," and that he would oppose the measure "vigorously."
—M.B.P.

Co-operative and Tax Exemption

ONE of the myths about co-operative tax advantages carefully cultivated by the co-op lobbies is that these co-ops are simply small enterprises which their farmer members conduct to help themselves, because regular commercial enterprise is not interested in such relatively profitless service. Actually, some of the biggest names in food processing and distribution belong to co-operatives. Their tax-paying commercial company competitors are up in arms. They say it is unfair, that they are being forced to the wall while Uncle Sam is losing millions in taxes.

All this is the subject of a very interesting recent book by a well-known economist, Robert T. Patterson. It is called *"The Tax Exemption of Co-operatives"* and it is published by University Publishers, Inc., of New York, New York. Patterson estimates that the federal Treasury is losing at least \$150 million a year through special exemption granted co-operatives and to co-op members who receive patronage dividend payments. State and local governments may be losing much more.

Those who have not kept track of the burgeoning co-op movements in the ranks of really big business can get a good eye opening just running over some of the trade names used by co-operative operators. Welch's grape juice, Land O'Lakes butter, Guild wines, Donald Duck concentrated frozen juices, Sun Maid raisins, Sunsweet prunes, and Sun-kist oranges, and a host of others. And in addition to processing, sale, and distribution of farm produce, co-operatives

are now entrenched in banking, insurance, electric and telephone service (via REA loans), wholesale power production, irrigation, housing, medical care, and burial services.

PRESIDENT Kennedy, in his message to Congress earlier this year dealing with proposed tax reform, showed that he was alert to the growing abuse of co-operative tax exemption when he asked for some measure of federal income tax on co-operatives. But oddly enough, he specifically asked that nothing be done about the REA co-op tax advantage.

It was during a congressional hearing on these very tax proposals that a businessman, Frank Gallup of Grand Island, Nebraska, made a very impressive presentation about the unfair competition which corporate tax exemption can create. Gallup was the initiator in 1952 of a virtually unknown fertilizer process based on ammonia as a source of nitrogen. It was hard going for awhile until the farmers finally accepted it. He had to spend much money on promotion. But when the ammonia idea caught on, the co-operatives moved into the picture in a big way. Here is what Gallup told the Congressmen:

I am here today because, despite my efforts to build a sound company, I am likely to be forced out of business in the next few years. Although every business has a certain element of risk, failures usually result from poor management, poor credit policies, poor services, or lack of market. . . .

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"HELLO, WILL YOU PLEASE SEND OVER YOUR BEST LINEMAN?"

Yet, here I am saying in all probability that under present circumstances I and many others will be forced out of a business that is just in its infancy—a business we helped to develop. It is not because of poor public relations, poor service, or lack of promotion. It is not that we sell an inferior product since it is identical to that of our co-op competitors. But it is just pure and simply due to tax factors our competitor gets and we don't.

WHEN Gallup started out in 1952, there were less than a dozen am-

monia tanks in the whole of Nebraska—all privately owned by tax-paying commercial interests. By 1959, the co-ops had 25 per cent of the tanks and were doing 40 per cent of the business. By 1965, Gallup figures the co-ops will be doing two-thirds of the business. He concluded:

Co-operatives invest money in processing, manufacturing, and distributing facilities to make a profit for their owners. That's the reason I invest my money, too. If my investment earns any income, the law of this land requires me to pay a tax on that income, first in the corporate structure, and then on

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dividends, if any. The co-operative sits there in exactly the same business and has no tax responsibility at all for the income their investment earns. This is such a good deal that they are now building a huge multimillion-dollar nitrogen plant at Hastings, Nebraska, a few miles from me. The money to build this plant, I imagine, came primarily from untaxed earnings.

Dr. Patterson's book takes the position that a co-operative is a private corporation and as such should legally pay the same rate and kind of taxes that any other business must pay.

More evidence of political tender regard for the co-operatives may be seen in the administration's Omnibus Farm Bill, which includes subsections that would permit them to merge, grow big-

ger, fix prices, and allocate marketing territories. These subsections (b) and (c) of § 401, Title I of HR 6400 would be in addition to the large measure of exemption of the provisions of the anti-trust laws which co-operatives already enjoy under the Capper-Volstead Act and § 6 of the Clayton Act.

Donald I. Rogers, syndicated columnist for the *New York Herald Tribune*, suggests that the new proposals would permit the co-ops to "do all of the things for which the electrical manufacturers were so severely castigated." He wondered where the Justice Department, which was "so terribly upset about the electrical manufacturers," was when these latest co-op exemption provisions were slipped into the Omnibus Farm Bill. He fears that it was looking the other way at the time.

REA's Approach to Rural Development

LAST spring the Administrator of the Rural Electrification Administration, Norman M. Clapp, spoke before the National Rural Electric Co-operative Association meeting in Washington, D. C. The NRECA conference was devoted to rural development and Mr. Clapp began his speech by stating that census figures show that the median annual income for an urban family in 1959 was \$5,755 while the median income for farm families was less than half of that figure—about \$2,800. This, Mr. Clapp stated, reflects low farm prices and widespread rural unemployment.

As a result of this economic lag, Clapp declared that 75 per cent of farm youngsters leave home by the time they are thirty years old. This creates an age imbalance which he believes is a serious threat to the future soundness and growth of the rural areas.

Clapp called on leaders of the REA-financed rural electric and telephone co-operatives to take leadership in creating more economic opportunity in rural America. He recommended that electric and telephone co-operative leaders form local community development committees to spark the creation of more rural industries. It was pointed out by Mr. Clapp that rural areas should retain a bigger share of the food and processing dollar. This, he said, could be achieved by getting farm produce as nearly ready for the retail stores as possible.

THE interest of REA in rural development, Clapp indicated, is tied directly to the interest of its 1,750 electric and telephone borrowers and the millions of people that they serve. He stated that rural development is not going to be "just a side line with us" and that "we are going to set

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up a special staff to concentrate on this phase of the program."

Clapp's statements regarding rural development are sure to interest the utility industry. One wonders, however, just how far the REA can go in this area without violating at least the spirit of the original legislation which established it. In relation to expanded REA activity, Clapp stated:

If, in addition, REA is delegated new loan-making authority under the Area Redevelopment Act, we hope to be in a position to make direct loans for industrial and commercial projects—and community facilities—in such depressed areas as may be designated. This would be in addition to our present program; it would not replace it.

THE concern of REA for the rural areas of the nation is understandable since the "farm problem" seems always to be with us. However, one is forced to ask if encouraging more rural industries can be expected to solve the basic difficulties of the farmer. The swing away from an agricultural society is a fact, but the farms are still with us and will remain so. Can the farmer's economic problems be solved by turning rural areas into industrial complexes?

Is the essential goal of the government to aid farmers as such, or is it to take him away from the soil and, through government loans, enable him to enter the field of industry? These are a few questions that Mr. Clapp's speech bring to mind.

Atomic Science and Government

MEASURES to improve the objectivity of the scientific advice to the U. S. government were recommended in mid-June by Representative Melvin Price (Democrat, Illinois), chairman of the Subcommittee on Research and Development of the Joint Committee on Atomic Energy. In an address to the Washington chapter of the American Nuclear Society, Representative Price, while expressing admiration for working scientists, pointed to certain problems involved in the provision for scientific advisers to the government. Included among the problems noted were: executive privilege preventing disclosure of scientific reports by the President's Scientific Advisory Committee and other advisory committees; problems of scientific ethics involved in the relations between advisers to the government from large universities and business enterprises; the killing of various projects by competitors; and the confusion of

scientific advice with policy and budgetary considerations.

In recommending corrective measures, Representative Price stated that we need a more diversified selection of scientific advisers. As an example, he said that the Atomic Energy Commission's general advisory committee does not have a person with a medical or biological background on it. He stated that there also seems to be a concentration of scientific advice from big business, and big universities. The only way to dispel criticisms that our scientific advice is monopolized by one or more cliques is to demonstrate that we do not have them, he said.

PRICE also urged the basis of important scientific and technical recommendations by the government's principal scientific advisers should be made public to the fullest extent consistent with national security. He stated that we can no longer

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afford the luxury of "star chamber proceedings" where top scientists in secret make decisive recommendations having important effects on our technology.

In conclusion, he asserted that we need

to have a new outlook for the provision of our scientific and technical advice. He suggested that some of our scientists and administrators in the atomic field may be losing their "pioneering spirit."

Secretary Udall Expounds Rural Electrification Needs

THE July issue of *Rural Electrification* contained an article by Secretary of the Interior Stewart L. Udall which seems to be a forecast of what the electric utility industry can expect in the next few years.

Secretary Udall, at the outset, indicates that his interest in rural electrification is due to the fact that wholesale power requirements of rural electric systems are doubling every five to seven years, and that 450 of these systems depend, for the greater part, on federally produced power. Therefore, the Secretary states, it is incumbent upon his department to see that these rural electric systems "do not wake up one day to find that their needs cannot be met."

In order to do this, Secretary Udall indicated that he will follow President Kennedy's policy statement which would provide preference in power sales for public agencies and co-operatives, give priority for domestic and rural consumers in the disposal of power, insure power at the lowest possible rates consistent with sound business principles, and dispose of power in such a way as to encourage widespread use without monopolization.

Secretary Udall states that his agency already has begun to carry out the President's directives and a five-man task force has been appointed to study the possibilities of a Pacific Northwest-Pacific Southwest common carrier, high-voltage intertie. The report of this group

is expected to be submitted by November of this year.

Project planning, Secretary Udall indicates, is "once more" steadily moving ahead and he states that the Bureau of Reclamation office in Denver is on a 58-hour week to expedite the hydro and transmission projects for the Upper Colorado river development.

THE Secretary, in this article, notes that today's problems are those of a vastly new dimension. No longer, he observes, is the concern for power confined to small, individual, localized areas. Today's problems involve entire regions and the troubles that a district manager of one state is experiencing could very well be those in store for others in a different state in the near future.

It is important, Secretary Udall states, that rural electric systems be interested in congressional action and REA programs. It is also important that such rural groups keep informed of the activities of the Interior and Commerce departments, since all of their programs affect the rural electric systems and their patrons. It is the rural co-operatives' responsibility to gather economic and human resources so that "pockets of poverty" and "chronic unemployment" can be eliminated. This, he asserts, is a very real challenge and by meeting it, the co-ops will be able to prove the social and economic values of the rural electric program.

The March of Events



Conversion Project Begun

DIRECT conversion of gas heat into electricity is moving a step closer to practical use in a research program undertaken jointly by the American Gas Association and General Dynamics Corporation's general atomic division.

The aim of the project is to develop a small, low-cost thermoelectric module which could be used to convert part of the heat from a gas flame directly into

small amounts of auxiliary electric power.

Such power could be used to supply energy necessary to operate a blower on a gas furnace. It might also be used to operate controls, fans, pumps, lights, and blowers on other gas appliances.

A major objective of the research is to develop a compact, durable, and lightweight low-cost device which is adaptable to multiple production techniques.

Alaska

Reimbursement Law Upheld

GOVERNOR Egan of Alaska has announced that the U. S. Bureau of Public Roads has agreed that the state's 1961 utility reimbursement act is constitutional.

The measure permits the state to reimburse utilities for the cost of moving

their facilities when necessitated by federal-aid highway construction.

Alaska Attorney General Ralph Moody earlier had issued an opinion holding that the act was constitutional.

Egan said the decision by the Bureau of Public Roads meant that the state would not have to test the law in court, as had been necessitated in many other states.

Arkansas

Merger Plans Approved

AMERGER of Arkansas Louisiana Gas Company and MidSouth Gas Company was approved by the state public service commission. Under terms of the merger, Ark La will exchange one share

of stock for two shares of MidSouth stock. As the surviving corporation, Ark La will assume the debts and liabilities of MidSouth. The commission said that on this basis the two-for-one exchange is fair.

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The commission's action was taken after it rejected a request for a continuance sought by a MidSouth stockholder, who did not agree that it was fair and sought to block commission action.

Attorneys for MidSouth declined comment on the next step in the merger, which also requires approval by the Kansas, Louisiana, and federal utility regulatory agencies.

Florida

City Plans Municipal Gas Plant

CONSULTING engineers were asked recently by the city commission of Fernandina Beach to prepare plans and specifications for a \$1.9 million municipal gas system.

While awaiting the plans and specifica-

tions, the city is to proceed with the preparation and sale of a revenue bond issue to pay for the new system. Revenue from gas sales will be pledged toward amortizing a 30-year loan.

Plans call for the sale of the bonds to be handled by the U. S. Housing and Home Finance Agency.

Georgia

Gas Pipeline Planned

ATLANTA GAS LIGHT COMPANY has announced the filing of a petition with the state public service commission for permission to build a \$5.7 million pipeline to furnish natural gas to southeast Georgia. The company said construction of the pipeline would get under way as soon as authority is received from the commission and from the Federal Power Commission. A spokesman for the company said the principal purpose of the new pipeline would be to provide natural gas supplies

to Brunswick and Waycross, which the company currently supplies with LP gas.

The company proposes to build a 12-inch line beginning in Chatham county near Savannah and proceeding about 63 miles southwest through Bryan, Liberty, and Long counties, into Wayne county near Jessup. From Jessup, an eight-inch line would continue 45 miles southwest through Pierce county into Ware to serve Waycross. Another 10-inch line would branch off about 41 miles to the southeast.

Illinois

Charge Set on CTA Transfers

ATRANSFER charge of five cents for all Chicago Transit Authority passengers transferring between buses and elevated-subway trains was agreed upon last month by the CTA board.

The CTA board also decided to reduce the children's and students' fare to a flat cash charge of 12 cents because many of

these riders also will be subject to the new five-cent transfer charge. The present children's and students' fare is 15 cents or tokens at 12½ cents each.

Virgil E. Gunlock, CTA chairman, announced that the board would take formal action to make the new transfer charge and the change in the children's and students' fares effective July 23rd.

THE MARCH OF EVENTS

Meanwhile, the CTA board postponed indefinitely any changes in the present 25-cent adult fare and other fares pend-

ing a comprehensive study of the entire fare structure for the bus and elevated-subway system.

Michigan

Construction Program Planned

PANHANDLE EASTERN PIPE LINE COMPANY said recently it plans a \$1.5 million construction program in Michigan for marketing locally produced natural gas. The program includes two gas processing plants and 16 miles of eight-inch field gathering lines in St. Clair county.

Panhandle said it has a sales agreement with Consumers Power Company of Michigan to deliver up to 15 million cubic feet of gas daily during winter months, starting this October 15th. The volume will increase to 25 million cubic feet daily in 1962. Another agreement calls for sales of 10 million cubic feet daily to South-eastern Michigan Gas Company.

Mississippi

Commission Rules in Co-op Case

THE state public service commission made a precedent-setting decision recently when it ruled that Mississippi Power & Light Company shall "cease and desist" expansion of its services into newly annexed areas of two towns, Clinton and Winona.

The commission's decision reserves the rights of two rural electric power associations already serving the disputed areas to continue services which had been per-

mitted under franchises granted before the two cities, Clinton and Winona, extended corporate limits. Under the commission's unanimous ruling, a precedent was set for any future cases where similar circumstances appear.

Immediately affected were Capital Electric Power Association, which for years served an area just outside Clinton recently annexed by that town, and Delta Electric Power Association, which has similarly served an area adjacent to Winona, now incorporated.

New Mexico

Reopening Gas Rate Case

THE state public service commission announced recently that a Southern Union Gas Company rate case would be reopened and additional testimony heard by the commission on August 8th in areas covered by a ruling handed down in Santa Fe district court.

The chairman of the state commission said his agency would not appeal to the state supreme court a decision by Judge Clyde C. McCulloh that vacated a pre-

vious order by the commission rejecting a rate increase and remanded the case to the commission. Additional testimony will be given by representatives of the gas company and members of the commission's staff, the chairman said.

Southern Union, which serves 32 New Mexico cities, applied for rate increases two years ago. The hikes amounted to 25 per cent for residential customers. They were put into effect provisionally on September 1, 1959, and are still in force.

PUBLIC UTILITIES FORTNIGHTLY

Transmission Line Approved

PUBLIC SERVICE COMPANY OF NEW MEXICO has been authorized by the state commission to build a 105-mile transmission line from the Ambrosia Lake area to a power plant near Farmington. The line would tie in with an Arizona Public Service Company power plant, under construction. The line's main purpose is to permit the two utility companies to use each other's reserve capacity.

The New Mexico company usually car-

ries its greatest load in the winter months and Arizona Public Service has a peak summer load, according to testimony by D. W. Reeves, president of the New Mexico firm, at a hearing conducted by the commission recently.

The line is to be put in next year. The power plant is scheduled to start operating in 1963. The company will pay \$3.4 million for the line and \$1.2 million for modifications to be required in existing service.

New York

Power Plant Sought

THE State Council of Parks moved last month to acquire the old Schoellkopf hydroelectric power plant in Niagara Falls. Meeting in the auditorium of the Robert Moses power dam at the St. Lawrence power project, the council unanimously adopted a resolution to buy the partly wrecked power station, service buildings, and eleven acres of land.

In June, 1956, the Schoellkopf plant was badly damaged by a landslide that swept part of the structure into the Niagara river. After it was renovated, the plant resumed limited operation. Officials said the plant would stop operating this fall when the New York State Power Authority took the entire United States share of the Niagara river flow for its Niagara power plant.

Ohio

Tax Relief Approved

GOVERNOR DiSalle has signed into Ohio law a bill removing the state utility excise tax from wholesale sales of gas and electricity. Following the bill's passage by the state legislature, DiSalle asked utility concerns if they intended to reflect the lowered tax charges in lower rates. The companies replied that they would cut

charges to the firms which buy from them in the amount of the tax reduction.

Ohio levies a tax of 3 per cent on the gas and electricity distributed by utility companies. Heretofore, the tax has been collected twice on some amounts of power and gas.

The law does not cover telephone and transportation companies.

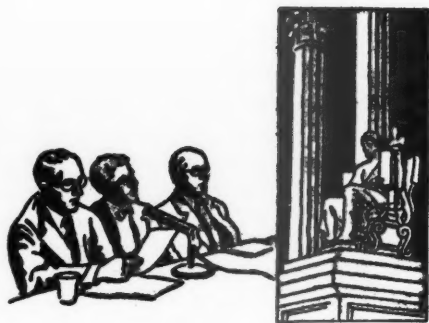
Oregon

Bond Issue Fails

VOTERS of Springfield recently refused by a narrow margin of 39 votes, in a special election, to authorize the issuance of \$3.9 million in revenue bonds for the municipal electric system to acquire

the duplicating and competing electric system operated within the municipality by Pacific Power & Light Company.

It was the second time within three years that voters refused authorization of the bond issue.



Progress of Regulation

Trends and Topics

Necessity of Commission Consent for Property Transfer to Municipality

MUNICIPALITIES may acquire property from public utility companies pursuant to agreement or under laws permitting acquisition by condemnation, or the exercise of the right of eminent domain. The question has arisen in some cases whether laws or commission regulations requiring commission consent to the transfer of property by a public utility company apply in these cases. A distinction may be drawn between those cases in which a voluntary transfer of property is involved and cases in which there is a judicial determination in a condemnation proceeding. This distinction is made in a recent decision by the Louisiana court of appeals.

Consent Not Required in Condemnation

The Louisiana court upheld the right of the city of Thibodaux to expropriate an electric distribution system owned by Louisiana Power & Light Company. It had been contended that approval of the commission was a necessary condition precedent because of a law relating to the necessity of obtaining commission approval before extending service into occupied territory, which law provided that the term "electric public utility" means any person furnishing electric service. The commission had expressed the opinion that the term "any person" would include a municipal corporation. The court did not believe that the law and opinions relied upon were applicable where the complete electrical facilities and the rights to serve the inhabitants in an annexed territory were expropriated by a municipality from the owner of the facilities and franchise.

It had been contended that the proposed expropriation was in violation of an outstanding order of the commission prohibiting any utility from transferring any of its property without first obtaining commission consent. The court said that this order could not possibly pertain to change in ownership brought about by the exercise of the right of eminent domain (38 PUR3d 231).

PUBLIC UTILITIES FORTNIGHTLY

Approval Not Required for Sale

The Tennessee commission, in passing upon an application for authority to transfer property of a water company, noted that the transfer or sale of utility property to a municipality does not have to be approved by the commission under the state laws, although the sale or transfer to another utility company or to anyone other than a nonutility must be approved by the commission (38 PUR NS 283).

The Tennessee commission, in a later case in which it approved the sale of facilities by a public utility company to a municipality, said that approval or consent of the commission is not a requisite for the sale of such property, but that the commission is not prohibited by law from granting its approval if it sees fit to do so. The parties had been fully informed as to the commission's lack of jurisdiction, but they had asked for commission approval since they had made a contract relating to dismissal of a judicial proceeding relating to discriminatory practices and commission approval of the sale would facilitate termination of the controversy (50 PUR NS 176).

The Washington supreme court decided that commission authorization is not required for joint acquisition of electric facilities by public utility districts, since the applicable statute giving two or more districts power by mutual agreement to exercise jointly all powers granted to each individual district was intended to place several districts, when acting together to effectuate a joint purchase, in the same position in which an individual district would find itself in proceeding with a purchase of electric facilities (2 PUR3d 244).

Approval Required for Sale

A New York court ruled that commission authorization was required before a corporation operating a water utility could sell its property to a municipality even though the commission had no jurisdiction over rates or service of municipally owned waterworks. The term "corporation" used in a statute regulating the sale of utility property by a corporation to any other person or "corporation" was held to include a municipal corporation. The court said that the provisions of the law requiring the commission consent were designed to regulate the disposition of operating properties by utility companies, not their acquisition by others. The regulatory power of the commission was said to be in respect to the transferor rather than the transferee (60 PUR NS 314).

After the Missouri commission received information that Springfield Gas & Electric Company had sold its property to the city of Springfield, an investigation was commenced to determine the validity of the transfer. The commission decided that the company should show cause why it had disposed of its property without obtaining commission approval. Such disposition was thought to be void under Missouri laws (58 PUR NS 252).

Property Not Included in Condemnation

A proposed voluntary sale or lease by an electric company of facilities not covered by a judgment of condemnation rendered in favor of a municipal

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utility district was held by the California commission to be subject to the requirement that commission authorization be obtained. A district had been organized for the purpose of supplying electric energy within the city of Sacramento and a surrounding area. Condemnation proceedings had resulted in a court decision upholding the district's right and power to acquire certain properties. Subsequently the district and Pacific Gas and Electric Company had entered into agreements relating to transfer of title and also relating to acquisition of certain additional electric facilities (65 PUR NS 477).

Possible Federal Power Commission Jurisdiction

In a rate proceeding before the Federal Power Commission it was contended that the commission was without jurisdiction because no application had been made to the commission for authorization to transfer the facilities of the Los Angeles Gas and Electric Corporation, including a rate contract, to the city of Los Angeles and that the contract of transfer was void. The commission did not decide the question as to necessity for approval but indicated that consent was required. Although it appeared that electric energy purchased from the Los Angeles Gas and Electric Corporation and transmitted by Southern Sierras Power Company to Boulder, for use in connection with the construction of a dam, did move in interstate commerce and that the facilities of the selling company may have been subject to the commission's jurisdiction, such fact was collateral to a consideration of the problem involved in the rate proceeding (32 PUR NS 193).

Review of Current Cases

Apportionment of Independent Telephone Plant to Bell-Independent Long-distance Service

ON complaint by General Telephone Company of Ohio against the Ohio Bell Telephone Company, the Ohio commission determined several disputed issues respecting the basis of settlement for interchanged message toll telephone traffic. The ultimate issue concerned the methods to be applied in apportioning the plant and costs of General in rendering joint Bell-Independent (B-I) intrastate message toll service. General sought an additional \$900,000 from Ohio Bell for joint intrastate toll service, but the commission awarded only about \$600,000.

The commission adopted relative minutes of use as a practical and proper

method of apportioning General's exchange circuit plant between state B-I business and other business. Ohio Bell's proposal to weigh in a mileage factor was rejected. While actual or relative use constitutes a proper and accepted guidepost for the apportionment of telephone plant, this is not the only criterion. In the modern complex of toll service, said the commission, such factors as necessity or usefulness of plant and related costs cannot be totally ignored.

It was found that General's interexchange circuit plant devoted to state B-I business should be apportioned on the basis of conversation minute miles in the

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interest of the orderly development of uniform telephone separation procedures and by reason of the status of the record in this proceeding. The commission observed that apportionment procedures neither preclude reasonable groupings to ascertain composite or average costs, nor bar the development of costs on a unit-of-use basis.

Sound subscriber rate structures are predicated on this basis.

Digit absorbing equipment, provided by General primarily to establish local 2-5 or 7-digit numbers for the benefit of the toll system where five digits or less would be adequate for local switching, was required to be assigned to "Other Toll Dial Switching Equipment—Category 5," rather than to "Local Dial Switching Equipment—Category 6." Although the commission recognized the technically correct argument of Ohio Bell that digit absorption equipment is used solely for local exchange service, it pointed out, nevertheless, that this equipment is both necessary and required to be used only by reason of the advancements

in toll service for uniform continental numbering and, thus, would appear clearly to be assignable to toll service.

Residual Issues Determined

The rate base determined in General's rate case earlier this year (37 PUR3d 321) was adopted as an appropriate valuation basis, for the purposes of this proceeding, with adjustments for retirements and additions. Depreciation rates constituting a composite depreciation accrual rate of 4.8 per cent will be employed with adjustments, if any, from time to time as such accrual rates may be authorized. A rate of return of 6 per cent on General's plant apportioned to state B-I business was adopted as neither unreasonably high nor unreasonably low.

Consistent with the foregoing determinations, the commission ordered settlement arrangements between the two companies to be made forthwith, with equitable provisions for interest on balances due from one to the other. *General Teleph. Co. of Ohio v Ohio Bell Teleph. Co. Case No. 28,946, June 9, 1961.*



Original Cost Preferred Instead of Reproduction Cost

THE New Jersey commission authorized a water company to increase rates to produce a return of 6.2 per cent where there was no specific evidence as to cost of money or fair rate of return. The company had presented evidence as to reproduction cost and original cost. The commission said it had considered the entire record with respect to the item of rate base and found that the evidence relating to reproduction cost was subject to the same defects pointed out in prior board and court decisions. Therefore, it deemed it fair and reasonable to develop a rate base on evidence pertaining to original cost.

In the calculation of the original cost rate base the company had deducted accumulated depreciation on property provided by customers' contributions and advances.

The board, however, was of the opinion that this adjustment was improper inasmuch as depreciation is taken upon all depreciable property, including contributed plant.

Pro forma adjustments reflected the annualization of revenues and expenses for the test year. The principal items of adjustment reflected increases of salaries and wages, amortization of rate case expenses over a five-year period, and ex-

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penses of installing and maintaining continuing property records over a ten-year period. These adjustments appeared to be reasonable. *Re Washington Water Co. Docket No. 613-241, June 14, 1961.*

The board made similar rulings on the rate base and the 6.2 per cent return allowance in another water rate proceeding. *Re Junction Water Co. Docket No. 613-240, June 14, 1961.*



No Refund of State Tax Payments

THE Federal Power Commission ruled that a gas company which did not protest the payment of a state gas-gathering tax and, consequently, received no refund of the tax payments after the tax was declared unconstitutional should not be required to refund to its customers the amount of the payments, even though a tax reimbursement rate increase had been

collected from the customers. The commission's purpose in suspending tax reimbursement rate increases involving the state tax, it was pointed out, was to provide for refunds by the companies to their respective purchasers in the event the tax was held invalid and refunds were made. *Re Arkansas Louisiana Gas Co. et al. Docket Nos. G-16125 et al. June 6, 1961.*



Gas Pipeline Expansion Projects Certificated but Central Wisconsin Lateral Disapproved

THE Federal Power Commission, in consolidated proceedings, approved expansion proposals of Northern Natural Gas Company which will increase its system capacity by 174,050 Mcf of natural gas per day. They involve additional sales to existing customers in Wisconsin, Illinois, Michigan, Iowa, Minnesota, Nebraska, and South Dakota and a sale to Michigan Wisconsin Pipe Line Company, a new customer of Northern Natural and an applicant in these proceedings.

The main issue as to Northern's applications concerned its ability to deliver gas from the Hugoton field. A 12-year supply established by the company was found to be adequate, assuming that Northern's average Hugoton field well is capable of producing at a rate equal to 42 per cent of its open flow potential. Certificates were issued for all of Northern Natural's proposals.

The commission agreed with the examiner that Michigan Wisconsin should be authorized to construct new main-line

loops and install additional compression horsepower, as the company proposed in its original application for service to existing customers. Pro rata allocations, under Michigan Wisconsin's gas tariff, of the additional gas to be purchased from Northern and transported through these new facilities were approved.

Inadequate Supply for Lateral Line

But the commission denied a further proposal of Michigan Wisconsin, offered as an amendment during the hearing, to construct a branch line loop and nearly 50 miles of 10-inch line, extending from Madison to Baraboo, Wisconsin. With these facilities, service would be furnished to a subsidiary, Milwaukee Gas Light Company, and to Wisconsin Power & Light Company. This service would enable the latter two companies to serve 24 new communities, two military installations, and a state prison in central Wisconsin. The cost to Michigan Wisconsin would amount to more than \$2 million.

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Michigan Wisconsin failed to show adequate supply and economic feasibility for the Baraboo lateral. The commission indicated that the supplies relied upon by the examiner for the service in central Wisconsin did not support his findings of an adequate third-year supply for either Milwaukee Gas or Wisconsin Power. The examiner had found that most of the firm peak-day requirements of Milwaukee Gas in the third year could be obtained by the company by taking 102 per cent of its maximum daily quantity from Michigan Wisconsin. The latter's overrun provisions allow a variation of 2 per cent either above or below the contract demand because of the inability of seller and buyer to maintain precise control over the rates of flow and the volumes delivered.

Since precise amounts within 4 per cent of the maximum daily quantity cannot be guaranteed, said the commission, it would be equally reasonable to say that Milwaukee could actually be short of the contract quantity on any given day by the amount which it claimed as overrun. Therefore, Milwaukee could not rely on getting precisely 102 per cent of the maximum daily quantity. The examiner had also relied on interruptible gas in the Milwaukee area. However, the peak-day estimates of the company did not include all anticipated conversions to firm service by presently interruptible customers of Milwaukee Gas. Nor did they include new customers needing additional gas. Furthermore, the firm requirements of the Milwaukee area will increase substantially within the next two years. The commission therefore concluded that, apart from some peak shaving gas from existing facilities, Milwaukee Gas did not show a dependable gas supply for the proposed new services.

The supply showing of Wisconsin Power, the other distributor to be served by the Baraboo lateral, was found to be subject to the same infirmities as those of Milwaukee Gas.

Economic Infeasibility of Lateral

Further compelling the commission to deny the Baraboo proposal at this time was the fact that the economic feasibility of the project was not shown. The commission's Rules and Regulations require that "if enlargement or extension of facilities are involved, the cost of service attributable solely to the proposed facilities shall be stated separately with supporting data." But the only showing made by Michigan Wisconsin with respect to the Baraboo lateral was a study indicating that it would have a relatively small effect on the return of the entire Michigan Wisconsin system. The examiner improperly accepted this showing of system-wide effect as sufficient evidence of economic feasibility of the proposal.

In view of Michigan Wisconsin's usual insistence on rigid application of its ten-cent formula for short laterals, the commission indicated that the company must also show an acceptable formula for determining the feasibility of longer laterals. Any other holding would be unfair to existing and potential customers of Michigan Wisconsin and would open the door to unlimited discrimination. Noting that the proposed central Wisconsin service was greatly desired by the potential customers, the commission observed that the denial of the project at this time does not prejudice a renewal of the proposal in a future proceeding. *Re Northern Nat. Gas Co. et al. Opinion No. 345, Docket Nos. G-20570, G-20571, G-18756 et al. June 28, 1961.*



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Rates in Relation to New Construction

THE Wisconsin commission authorized a telephone company to increase rates to produce a return of 6.5 per cent rather than 6.72 per cent as proposed by the company. The company had resulted from consolidation of two other companies and it intended to rebuild major portions of its outside plant. It proposed that the requested rates be placed into effect when 75 per cent of the new construction is completed.

The proposed addition and retirement units, unit costs, dollar amounts of plant, and estimated operating expenses had been examined by the commission and

were found reasonable. The commission, however, said that any rate increase predicated in part upon costs associated with future additions to plant should not be placed into effect until 90 per cent of the plant additions are in service.

There were two exchanges involved in the rate proceeding, and the commission said that if the scheduled improvements in one exchange reach 90 per cent completion before those in the second exchange, it would be reasonable to place the higher rates into effect in that exchange. *Re Chippewa County Teleph., Inc. 2-U-5481, May 18, 1961.*



Gas Pipeline Return Allowance Based on Third-year Operation despite Low Initial Return

THE U. S. appeals court affirmed a Federal Power Commission order which limited a natural gas pipeline company to a rate of return of 6½ per cent based on third-year operations of a new pipeline, even though the actual return during the first two years would be only 4.9 per cent and 6.07 per cent, respectively.

At the time of the certification of the new line, the company proposed rates which would produce a return of 7 per cent. They were disapproved, and the commission indicated that no determination as to rate of return would be made at that time. The question of the rate of return was deferred, and it was made clear that the rate schedules would have to be satisfactory to the commission. Although the commission approved the company's financing plan, which contemplated a return of 7 per cent, the commission warned that it did not approve 7 per cent. The evidence indicated that the rate of return for the first two years was not required in the procurement of

financing. Nor was it required to support financial commitments.

Rate schedules based on a 7 per cent return were again submitted for filing after construction was commenced. They were rejected, and the commission determined that 6½ per cent was sufficient. Midwestern then sought review, taking the position that the rates for the first two years were arbitrary and confiscatory, that the commission's order lacked findings and substantial evidence to support it, and that the commission abused its discretion in rejecting the proposed rates after previously approving the financing plan based on such rates.

Normal Operation Basis

Midwestern could not expect to charge rates during the development period, said the court, that would produce revenue in an amount which it would be entitled to receive when the full capacity of operation has been attained. Rates are to yield a reasonable return on the value of the property used, at the time of its being

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used, and this rule is applicable where the plant facilities are operating at less than capacity. This was the situation in this case with respect to the first two years.

The court held that the third-year operation was a proper basis upon which to fix a rate of return for rate-making purposes. It would be the first full year of normal operations. The use of an earlier year as a test year would result in excessive cost to the consumer, whose protection is the primary aim of the Natural Gas Act.

The court found ample evidence to support the commission's order, and it was free from error.

Dissent Notes Rights of Companies

Judge Brown, concurring specially, questioned the usual view that the primary aim of the Natural Gas Act is to protect the consumer. He declared that "Congress was equally concerned with the rights, the ownership, and the imperative requirement for fairness due those who own this valuable natural resource, those whose ingenuity and risk-taking captures it for man's productive use, and those who transport it from the wellhead to the burner tip." *Midwestern Gas Transmission Co. v Federal Power Commission*, No. 18606, June 30, 1961.



Population Density and Continuity of Development Require Expansion of Telephone Exchange Area

WHILE a telephone company must offer the same service at the same rates to all persons similarly situated, said the Ohio commission, the charging of higher rates outside the base rate area is not discriminatory if the base rate area is justly constituted, encompassing all groups of customers to whom base rate area treatment is due. The general rule is that a utility may charge but one rate for a particular service, and any discrimination between customers as to the rate charged for the same service under like conditions is improper.

The commission indicated that there are two basic factors—density of development (structural and customer concentration) and continuity of development—to be considered in determining whether customers in adjacent areas outside a base rate area are so substantially similarly situated in comparison with customers within the base rate area as to make unlawfully discriminatory any difference in rates and charges between them. If both reasonably comparable density and rea-

sonable continuity of development in fact exist in the adjacent area, the company must include it in the base rate area. Rate discrimination, of course, would otherwise result.

Applying these factors, the commission found that The Northern Ohio Telephone Company, on complaint by a large number of customers, should be required to expand its Brunswick exchange rate base area to include two of several additional areas which more than a thousand customers asked to have included. These two areas met the commission's two-factor test; the others did not. It was made clear, however, that the company has a continuing duty to keep itself apprised of future developments in the adjacent territory and to seek approval for further expansion of the base rate area if and when circumstances warrant.

Irregularity of Boundary

It was noted that the inclusion of the two additional areas in the Brunswick exchange base rate area would give it

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an irregular boundary. But geometric consistency, said the commission, must always yield in the face of unjust discrimination in rates between similarly situated customers. It is the prerogative of management to conform its base rate areas to square or regular shapes only so long as such areas include all territories

possessing comparably dense and continuous development.

The commission found no support for the complainants' charge of inadequate service in the Brunswick exchange. *Brunswick Civic Asso. et al. v Northern Ohio Teleph. Co. No. 27,887, June 8, 1961.*



Court Refuses to Disturb Commission Decision On Allocation of Area

THE determination by the Indiana commission in *Re Indiana Telephone Corporation* (26 PUR3d 568), that a certificate of territorial authority should be granted notwithstanding objections by a co-operative, has been upheld by the appellate court of Indiana. The case had previously been before the supreme court and affirmed in part and reversed in part (21 PUR3d 497).

Rulings on Prior Appeal Control

The appellate court said that it must bear in mind that the decision and rulings made by the supreme court upon the first appeal, settle definitely for the purposes of the litigation all questions adjudicated. The supreme court's judgment on the former appeal is *res judicata* against the parties of record thereto with respect to all matters in issue and determined therein. A subsequent appeal

only brings up for review the proceedings subsequent to the reversal or remand, and questions presented on the first appeal, including jurisdictional questions, will not be considered on second appeal.

Conclusiveness of Commission Decision

Allocation of a utility service area, said the court, is a legislative function. The legislature has delegated that function to the commission. The general rule of law is that the appellate court may not weigh the evidence and substitute its discretion or judgment for that of the commission. The court cannot, as a general rule, disturb findings of the commission where it has conformed with the statutory procedural methods and where the commission's decision is supported by substantial evidence. *Davies-Martin County Rural Teleph. Corp. v Indiana Pub. Service Commission et al.* 174 NE2d 63.



Segregation in Railroad Terminal Held Unconstitutional

A FEDERAL appeals court, reversing a lower court, ruled that orders of the Alabama commission, as well as an underlying state statute, requiring that a railroad terminal in Birmingham provide, maintain, and mark separate facilities on the basis of race are unconstitutional. The state may not compel segregation in

use or maintenance of separate facilities where the criterion is race or color.

A railroad terminal, when in the execution of its public utility function, is the instrument by which state policy is effectuated, for activity which might otherwise be deemed private may become state action within the Fourteenth

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Amendment. Whether it is state policy is to be determined by the nature of the activity in terms of the governmental nature of the function and not the mere presence or absence of power in the state's vicarious "agent" to impose criminal sanctions.

It is simply beyond the constitutional competence of the state, said the court, to command that any facility shall be labeled as or reserved for the exclusive or preferred use of one rather than the other of the races.

Discriminatory Ticket Checking

The court further held that action of city police in demanding to see the tickets of Negroes sitting in a terminal waiting room marked "Interstate and White Intrastate," in order to verify their interstate status, constituted a denial of equal protection since white travelers were not subjected to such treatment. It was likewise declared a constitutional violation to require Negroes in intrastate travel, simply because of color, to prove their right to be in the waiting room.

The intrastate as distinguished from interstate status was considered irrelevant. It is too late now, said the court, to question the absolute right of Negroes engaged in intrastate commerce to be free from discrimination by police officers on the basis of race.

The trial court had apparently assumed that some specific ordinance or formally promulgated policy had to be established before the city and its agents could be said to be acting under color of office. This, said the appellate court, is not the test. If city policemen, with the color of office which their uniform, badge, display of authority, and available arms reflect, undertake as policemen to subject persons to treatment which denies them a constitutionally protected right, it is state action. It is state action even though it is in excess of actual legal authority or even if done without formal authorization.

In remanding the case to the trial court, the appellate court directed the issuance of appropriate injunction and declaratory orders. *Baldwin et al. v Morgan et al.* 287 F2d 750.



Full Crew Statute Not Applicable to Short Railroad Lines

Safety of Operation

THE New York commission denied a complaint by a railroad union against the New York, New Haven & Hartford Railroad Company alleging violations of § 54-a of the Railroad Law. This so-called Full Crew Law provides that no corporation shall run or operate, outside of the yard limits, on any railroad of more than 50 miles in length within the state, a freight train of more than 25 cars, unless said train shall be manned with a crew of not less than one engineer, one fireman, one conductor, and three brakemen. Freight train operations against which complaint had been made were conducted with a five-man crew.

The commission concluded that the hearing examiner was justified in denying a motion of counsel for the complainant to strike evidence offered by the company relating to the safety of operations in question. The complaint filed with the commission was subject to the construction that the complainant placed in issue the safety of these operations. Although the complainant did not proceed upon that theory in presenting proof, safety of operations, nevertheless, was alleged in an affirmative defense contained in the railroad's answer.

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The commission said that while it must apply the statutory provisions as they exist, and may not negate the legislative requirement upon constitutional grounds, it believed the company was entitled to make a record for possible review of that question by the courts. Moreover, the commission has jurisdiction, under § 49(2) of the Public Service Law, to require an additional brakeman if reasonably required in the interest of safety, especially where it is questionable whether the Full Crew Statute is applicable. The commission concluded that the freight train operations complained of were not dangerous or unsafe by reason of the use of a five-man crew.

Trackage Limitations

There remained for determination the ultimate question whether the operations fell within the purview of § 54-a of the Railroad Law. The railroad line over which the freight trains operated was concededly less than 50 miles in length. On the other hand, if other noncontin-

uous or unconnected lines of railroad, either owned or operated by New Haven in the state, were considered along with the railroad line over which the operations in question were conducted, then more than 50 miles of New Haven-owned or -operated lines existed in the state.

The commission said it was constrained to reject an interpretation under which the existing segments of different railroad lines, owned or operated by a railroad company within the state, would be added together and, if the sum exceeded 50 miles, the statute would thus be made applicable to each segment. The commission thought it more reasonable and in accord with the legislative meaning to construe the phrase referring to 50 miles in length as relating to operations on a continuous railroad line of over 50 miles in length within the state. Under this construction the freight operations in question did not come within the purview of this section of the Railroad Law. *Sullivan v New York, N. H. & H. R. Co. Case 19198, June 13, 1961.*



Commission Declines to Render Advisory Opinion On Train Crew Question

AN application by Chicago & North Western Railway Company for an investigation by the Illinois commission to determine and prescribe operating practices concerning engine crew requirements in suburban service was denied. Representatives of railroad unions had filed motions to dismiss for want of jurisdiction, stating in substance that this pertained to working conditions covered by agreements between the applicant and its employees which were subject to the Railway Labor Act and was an attempt to involve the commission in a purely labor dispute.

The commission, at the outset, stated

that it has no jurisdiction over purely labor disputes and employee management relations, referring to its decision in *Commercial Telephone Workers' Union v Illinois Bell Teleph. Co.* (52 PUR NS 161). Not only does the state law fail to confer such jurisdiction on the commission, but in the area of railroad labor it would appear that Congress has pre-empted the field by the passage of the Railway Labor Act. The commission does, however, have jurisdiction over issues pertaining to the safety of a utility's plant and equipment if and when such matters are properly before it for decision.

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Question of Possible Unsafe Condition

No one questioned the safety of the operations or conditions being presently employed. The commission said that if the operation with two men in the cab was safe, then the commission should not be concerned with some other operation which would also be safe but not presently contemplated. The application stated in substance that the existence of a second man in the cab of the push-pull train might create an unsafe condition but did not charge that the second man did or would create an unsafe condition. The commission said that to allege that something may happen is not the same as

saying that it is likely to happen.

If the commission were to decide matters of safety upon the assumption that something might go wrong, causing injury or damage, all forms of transportation would be in jeopardy. There is no means of operating a public utility that is absolutely safe and that may never go wrong. The commission has jurisdiction to require every public utility to maintain and operate its plant and equipment in a safe manner, but the commission should not set aside the practice in use, even though considered safe, and require a different one which in its opinion is also safe. *Re Chicago & N.W.R. Co. No. 47097, June 6, 1961.*



Electric Co-operatives Not Protected from Municipal Extension into Annexed Area

THE Idaho supreme court upheld a lower court's denial of preliminary injunctions to restrain a municipality from extending electric service into annexed areas where co-operatives were providing service. A so-called "antipirating law" prohibits a public utility or co-operative association from extending or rendering electric service directly or indirectly to the premises of any person already receiving service from another public utility or another association or to a service location which has been previously served by a public utility or co-operative association. Provision is made for an injunction to restrain violation of this law.

This act had been codified as part of the Public Utilities Law, which, in defining "public utilities," excludes municipal corporations. This statute had been appended to the Public Utilities Law even though it was enacted as a separate act and not as an amendment. The co-operative associations urged that enact-

ment of this law as a separate enactment was determinative of a legislative intent to use the term "public utilities" in a generic sense. The court said this contention was not supported by cited cases, nor was it supported by reason.

When the language used in a statute has a definite, clear meaning and applies to a certain case, the courts must give effect to that meaning whether or not the individuals comprising the legislature anticipated the result. If the legislature intended to subject municipalities to this law it should have done so specifically.

The evil sought to be remedied, said the court, appeared to have been the pirating of customers between co-operative associations and public utilities subject to regulation under the Public Utilities Law. The court found nothing to indicate that the legislature considered, or intended to include, municipal corporations.

The court concluded that the term "public utilities" in this law was to be defined as it was defined in the Public Utili-

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ties Law, and the municipality was not subject to the statute and the co-operatives were not entitled to preliminary injunction. The court also rejected a contention that the co-operatives were entitled to a preliminary injunction under

the general equity power of the courts. The record did not support a claim of threatened irreparable damage, nor did it show any abuse of discretion by the lower court. *Unity Light & P. Co. et al. v City of Burley*, 361 P2d 788.



Railway Express Agency Permitted to Substitute Motor Carrier for Discontinued Train Service

THE Maine supreme court upheld an order of the commission authorizing Railway Express Agency, Inc., to provide a substitute motor for rail service for the handling of express traffic which formerly was served by trains of the Maine Central Railroad. The court said that the express agency was not requesting any change in the authority to express different types of merchandise but to substitute highway transportation for rail transportation when rail transportation was no longer possible because the trains had been discontinued. This did not constitute an inauguration of a new service.

The record disclosed evidence of public convenience and necessity. For instance, a lobster shipper considered express service the most dependable for his

type of business; a mail-order grocery and perishable food business contended that the service met a requirement not provided by other carriers; a large industrial plant using a perishable item in the manufacture of its products found this express service a necessary adjunct to the operation of its business.

The Railway Express Agency, Inc., by substituting the method of transportation, said the court, was not in any manner encroaching upon the rights of those carriers serving the area, and the express company should not be penalized because of the loss of an established mode of transportation resulting from circumstances over which it had no control. *Re Railway Express Agency, Inc.* 170 A2d 380.



Loop Operation of Sight-seeing Boats Is Subject To Regulation

THE California commission ordered the discontinuance of sight-seeing operations on San Francisco bay by a corporation which had not obtained a certificate from the commission. The company took the position that the commission had no jurisdiction over vessel sight-seeing operations which embark from a point, traverse California waters or the high seas without touching land, and return to the point of origin.

The applicable law provides that no

corporation shall operate a vessel for the transportation of persons or property, for compensation, between points in the state without obtaining a certificate. It had been argued that none of the parties were engaged in "transportation" since transportation means to carry or convey from one place to a different place. The commission concluded that for the purpose of regulatory statutes, and particularly the law under consideration, "transportation" means a "carrying across" without refer-

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ence to different geographical places of origin and termination.

As to the question of transportation "between points in this state" the commission decided that the law did not contain any language indicating that it dealt

only with transportation between separate geographical places. It is not restricted to transportation between "different" points or "from one point in this state to another." *Re Crowley et al. Decision No. 62028, Case No. 6480, May 22, 1961.*



Objectors to Transfer of Operating Permit Have Burden of Proof

THE Virginia supreme court upheld an order of the commission approving the transfer of a grandfather certificate by a petroleum tank truck carrier. Carriers objecting to the transfer insisted that there was no evidence before the commission that the transfer would serve the public convenience and necessity. The court said that, to the contrary, the certificate owned by the truck carrier furnished evidence supplied by statute that operations under it were justified by public convenience and necessity. The burden was on the objectors to show, for whatever reason they could establish by evidence, that the transfer would not serve the public convenience and necessity. The applicable law provides that the certificate may be transferred if the com-

mission finds that the proposed "transfer," not the proposed "operation," will serve public convenience and necessity. Inherent in the certificate is the legislative declaration that it does serve the public convenience and necessity in the hands of the present owner.

No one had testified against the transfer and the commission had found, on the evidence before it, that the transfer would serve the public convenience and necessity. This finding, said the court, must be regarded as prima facie just, reasonable, and correct, and could not be upset in the absence of a showing of an abuse of discretion vested in the commission by statutory and constitutional provisions. *Petroleum Transit Corp. of Virginia v Virginia*, 119 SE2d 494.

Other Recent Rulings

Interim Rates Authorized. Interim rates proposed by a telephone company for new dial service in two exchanges were authorized by the New York commission subject to appropriate safeguards for the ratepayers pending final determination as to the propriety of the rates, where the dial system had been designed for the proposed rates and public demand for the new service would not admit of the delay requisite to a final rate determination. *Re Rochester Teleph. Corp.*

et al. Case 21683, May 23, 1961.

Bond Issue. The New York commission authorized Consolidated Edison Company of New York, Inc., to issue \$50 million of first and refunding mortgage bonds for plant additions, subject to competitive bidding and final commission approval of the sale, and it appeared that the issue would result in a debt ratio of about 57 per cent exclusive of unearned surplus-special. *Re Consolidated Edison*

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Co. of New York, Inc. Case 21711, May 23, 1961.

Prompt Payment Discount. The Nebraska commission approved a 50-cent prompt payment discount on monthly telephone rates ranging from \$5.50 to \$9.50. *Re Northeastern Teleph. Co. Application No. 22827, May 24, 1961.*

Gas Storage Project Conditioned. Panhandle Eastern Pipe Line Company was authorized by the Federal Power Commission to develop an underground storage, using 6 million Mcf of gas from its own supplies which it proposed to obtain by virtue of its system flexibility and varying customer demands, but a condition was attached whereby the expenditure for the development would not be allowed as a part of the company's rate base in the event the company could not provide the 6 million Mcf of gas. *Re Panhandle Eastern Pipe Line Co. Docket No. G-19461, May 25, 1961.*

Notice of Sale of Property. In a proceeding by a telephone company for approval of a sale of unused real estate, the New Jersey commission denied a motion to dismiss made by an objector on the ground that the company's advertisement of the proposed sale did not comport with the commission's rules of practice, where the objector had not relied on the advertisement and where all negotiations by him in the interest of purchasing the property were subsequent to the cutoff date for bids specified in the advertisement. *Re New Jersey Bell Teleph. Co. Docket No. 613-137, May 25, 1961.*

Discrimination Must Be Related to Transportation. A federal court, affirming a judgment in favor of railroad com-

panies in a suit for damages brought by warehousemen who alleged discrimination resulting from railroad operation of a terminal, held that the Interstate Commerce Act penalizes a carrier for discrimination only with respect to transportation and that the plaintiffs must show that they were injured by unlawful discrimination "in relation to transportation." *Shaw Warehouse Co. et al. v Southern R. Co. et al. 288 F2d 759.*

Telephone Directory Omissions. The court of appeal of Louisiana held that a trial court properly exercised its discretion in awarding damages to a business subscriber for a telephone company's breach of contract in erroneously failing to list the business name of the subscriber in the white pages of the telephone directory just as it appeared in the classified section where the pecuniary damages emanating therefrom were extremely difficult to establish. *Scheinuk the Florist, Inc. v Southern Bell Teleph. & Teleg. Co. 128 SO2d 683.*

Appeal Filed Too Late. The Ohio supreme court dismissed an appeal from a commission order on the ground that it had not been filed within the time prescribed by law, where an application for rehearing had not been denied within the twenty days fixed by law and therefore was denied "by operation of law," with the result that a supplemental order issued later was ineffective. *Pennsylvania R. Co. et al. v Ohio Pub. Utilities Commission, 174 NE2d 102.*

Fire Protection Rates. The Wisconsin commission deemed it reasonable to establish a fixed charge per residence for public fire protection service in a new real estate subdivision containing homes having a fairly uniform price range until such time

PUBLIC UTILITIES FORTNIGHTLY

as a normal saturation of homes is reached, at which time the company's entire revenue requirement and rate structure would be reviewed. *Re Pleasant Park Utility Co., Inc. 2-U-5541, May 1, 1961.*

Return for Municipal Water Plant. The Wisconsin commission authorized a municipal water plant to increase rates to a level calculated to yield a return of 5.7 per cent on a net book value rate base. *Re Village of North Freedom, 2-U-5538, May 9, 1961.*

Extended-area Telephone Service. The Illinois commission ordered the Illinois Bell Telephone Company to establish extended-area service from one exchange to the exchanges of certain other communities where the community of interest demonstrated by the volume of calling between the exchanges involved justified their inclusion within the flat-rate calling area of the other exchanges. *Parke et al. v Illinois Bell Teleph. Co. No. 47544, May 16, 1961.*

Carrier Competition. The Massachusetts commission authorized competing motor carrier service despite its policy to preserve a carrier's territory without harmful competition from other carriers where the new service was superior to the existing service and was required by public convenience and necessity. *Re Plymouth & Brockton Street R. Co. DPU 13419, May 19, 1961.*

Telephone Connection with Mutual Company. The Missouri commission authorized a regulated telephone company to connect at a point in its exchange area with the switchboard of a mutual company and to serve patrons of the latter

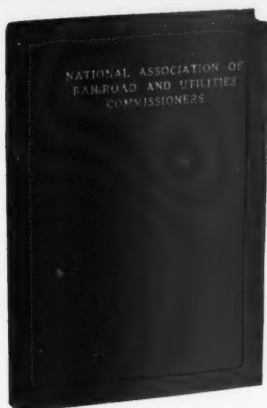
where both the company and the mutual desired the connection, but in doing so the commission noted that it may not order a regulated utility to connect with a mutual company against its will. *Stutler v Milan Teleph. Co. et al. Case No. 14,623, May 22, 1961.*

Multiparty Telephone Service. The New Jersey commission authorized a telephone company to discontinue the offering of new four-party residence service in recognition of the fact that such service no longer adequately meets the subscribers' requirements and is, therefore, becoming increasingly obsolete. *Re New Jersey Bell Teleph. Co. Docket No. 615-373, May 25, 1961.*

Rate-making Unit. The New Jersey commission, in a sewer rate case, held that where operations are conducted by separate corporations, although affiliated, there is no justification in law or fact for treating the companies on a combined basis for rate-making purposes. *Re Ocean City Sewer Service Co. Docket No. 6012-907, May 25, 1961.*

Electric Rate Increase. The Wisconsin commission authorized an electric company to increase rates to a level calculated to yield a return of 6.15 per cent after finding that the return of 4.5 per cent under the company's existing rates was inadequate. *Re Wisconsin Michigan Power Co. 2-U-5403, May 26, 1961.*

Donations Allowed. In ruling on a rate increase for a small gas company, the Ohio commission allowed an expense claim for donations. *Re Racine Gas & Service Co. Case No. 29,815, June 13, 1961.*



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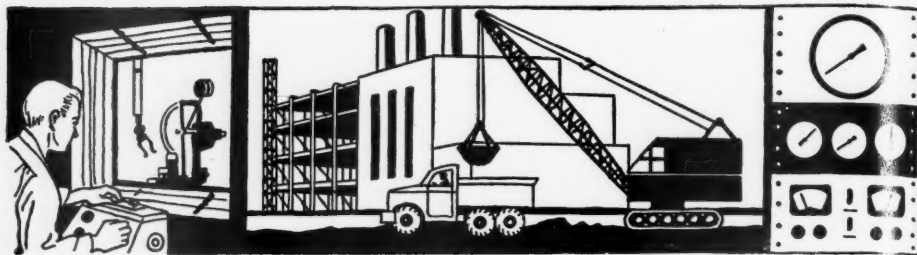
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Industrial Progress



\$720,000,000 Program Planned By Commonwealth Edison

COMMONWEALTH Edison Company's construction expenditures for the five-year period, 1961-1965, are estimated at \$720,000,000, Willis Gale, Chairman, announced recently.

Largely because of greater use of its interconnections with other utility companies, Commonwealth Edison has been able to defer part of the construction originally planned for the four years through 1964.

"Previously we had planned to spend \$640,000,000 during the four years through 1964," said Mr. Gale. "Our revised program now contemplates a reduction, by deferment, to \$570,000,000. However, because of the deferment we have added an estimate for 1965. The revised estimates are \$155,000,000 for 1961, \$140,000,000 for 1962, \$130,000,000 for 1963, \$145,000,000 for 1964 and \$150,000,000 for 1965, a total of \$720,000,000.

"Our transmission line interconnections with other systems are becoming increasingly valuable in the economic planning of generating additions. For example, our existing 345,000 volt interconnection with American Electric Power made it possible for us to arrange for a firm purchase of 300,000 kilowatts from that system for the summer of 1964. This assured supply allows us to defer the completion of one 560,000-kilowatt generating unit from 1964 to 1965. Also, we have assumed that we will be able to defer a second one of the same size from 1965 to 1966."

Mr. Gale said that Commonwealth now has under construction or on order five generating units aggregating 2,240,000 kilowatts scheduled for service between 1962 and 1966.

Under this program, which is sub-

ject to continuous review and modification, the utility's present net generating capability of 5,511,000 kilowatts would be increased to 7,606,000 kilowatts after allowance for retirement of old equipment.

McGarry Elected President of United States Concrete Pipe

William R. McGarry has been elected president of United States Concrete Pipe Company, subsidiary of Pittsburgh Coke & Chemical Company, it was announced recently. He succeeds the late Robert M. Moore.

Mr. McGarry was formerly vice president and general manager of the company, which manufactures concrete pipe and vitrified clay pipe at ten locations in the eastern United States from Michigan to Florida.

Duke Power Completes Plant Allen

PLANT Allen, the largest investor-owned electric power plant in the Southeast, is now completed.

The fifth and final turbine is on the line, providing an additional 275,000 kilowatts of electric power to the Duke Power Company system and bringing the total nameplate capacity at Allen to 1,155,000 kilowatts.

With the activation of this newest turbine, annual kilowatt-hour output from the plant has been raised to about $6\frac{1}{2}$ billion kilowatt hours, almost the entire Duke system's production in 1950. The cost of the now completed plant is in excess of \$120 million.

Allen Plant (located near Belmont, North Carolina) is the second largest investor-owned steam plant in the United States. The largest plant, with a capacity of 1,304,000 kilowatts, is

Clifty Creek on the Ohio river near Madison, Indiana, and is owned by the Indiana-Kentucky Electric Corporation.

Named for the late George Gale Allen, native North Carolinian and long time associate in the Duke interests, Plant Allen has several features. One of these is the mile canal used to return water from Catawba river after utilization in the plant's condensers. The plant uses nearly 600,000 gallons of this water per minute.

The units at Allen are reheater-type and operate with steam at 2,400 pounds pressure and 1,050° F. temperature. In the reheater, steam is heated to 1,050° and a portion of the way through the turbine, returned to the boiler, reheated to 1,000°, then returned to use through the remaining stages of the turbine.

New Philco 2400 Brochure Available on Request

PHILCO Corporation's Computer Division has published a color brochure on the new Philco 2400, the company's latest data handling system.

The brochure describes in detail some of the outstanding features of the Philco 2400. It points up 2400's ability to lower costs and increase productive time on Philco 2000 series of electronic data processing systems. According to J. Nisbet, the Division's marketing manager, the Philco 2400 opens a new area in Total Systems Planning for business, science and government.

For copies of the booklet, or any other information on Philco computers, write the Marketing Department, NP, Computer Division, Philco Corporation, 3900 Welsh Road, Philadelphia, Pa.

INDUSTRIAL PROGRESS—(Continued)

Westinghouse Awarded Static Inverter Contract By Public Service Electric & Gas

The Public Service Electric and Gas Company of New Jersey has awarded the Westinghouse Electric Corporation a contract to furnish an 11-KVA static inverter for the utility's automated steam power unit under construction at Sewaren, New Jersey. The inverter, utilizing silicon Trinistors as switching elements, will be built by the Industrial Electronics Department of Westinghouse at its plant in Baltimore, Maryland.

Offering a new concept in emergency power system design, the Westinghouse inverter will continuously supply 60-cycle power to such vital loads as boiler flame detection and combustion control equipment.

Should station power be interrupted, these loads are affected since the inverter draws its energy from 480-volt station batteries kept under constant charge. The inverter will also serve as an emergency source of power for chart drives and instrumentation.

According to Westinghouse, this is the first known application of a semi-conductor static inverter to this particular need of the electronic utilities.

Kuljian Corp. to Serve as Consultant To West Pakistan Project

The Kuljian Corporation, Philadelphia engineers and architects, has been selected as consultant to the Water and Power Development Authority of West Pakistan to provide complete engineering services for a new multi-million dollar electric power station at Quetta, it was announced by Arthur H. Kuljian, vice president of the international firm.

The new power facility, part of West Pakistan's five-year economic development program, will create electric energy to provide irrigation for vast areas of presently unproductive land in the Quetta region; to increase the output of coal mines which are only partly mechanized; and to supply power to new industries planned for the region.

The initial capacity of the station, to be known as Quetta Thermal power station, is 15,000 kilowatts. The project includes outside coal storage, ash handling and cooling tower facilities.

Kuljian has been assigned the site investigation and feasibility report, design, engineering, procurement, construction supervision, acceptance test conductance and initial operation of the electric power project which cost approximately \$7,500,000.

Kaiser Aluminum to Build New-type Towers for Appalachian Power

CONTRACT for 420 new-type aluminum towers to be used in the construction of a 122-mile, 345,000-volt electric power transmission line has been awarded to Kaiser Aluminum & Chemical Corporation, it was announced recently by the American Electric Power Service Corporation.

The new line, designed and engineered by the AEP Service Corporation, will be built, owned and operated by the Appalachian Power Company of the American Electric Power System. It will extend from the company's Kanawha river plant near Charleston, W. Va., to a major new substation near Roanoke, Va.

The design of the towers is unique, and the first time employed in the United States for such a super-high-

(Continued on page 18)

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voltage line. They will be V-shaped, will require only a single foundation, and will be guyed by four wire anchors.

Nuclear Data System Bulletin Available from MSI

NEW Nuclear Data System Bulletin 101, 4 pages, 2-colors, gives standard design specifications and application information on 3600-point High-speed Automatic Monitor (HAM) system for ultra-reliable control of nuclear reactors.

For free copy, write Monitor Systems, Inc., a subsidiary of Epsco, Inc., Dept. 16, Fort Washington Industrial Park, Fort Washington, Pennsylvania.

Allis-Chalmers Awarded Design Contract For Swedish BWR Power Plant

A CONTRACT to perform design studies for a 56,000-kw boiling water nuclear power plant has been awarded to Allis-Chalmers by Aktiebolaget Atomkraftverk, a utility group in southern Sweden. Included in the contract is the preliminary design work for the proposed plant, which would be built at Simpevarp, Sweden.

Studies will be based on the installation of a direct-cycle, natural-circulation reactor rated 173 mw (thermal). Using ceramic uranium dioxide pellets (low enrichment), the reactor would deliver dry, saturated steam at 1250 psig, 574 F directly to the turbine.

Allis-Chalmers previously designed, fabricated and installed a 30,000-kwt high flux research reactor for Aktiebolaget Atomenergi at Studsvik, Sweden. This water cooled and moderated reactor is being used for material testing, fuel development and nuclear research.

A. E. P. and S&C Conduct Interrupting Tests on 138-KV Circuit Switcher

RECENTLY completed tests, jointly conducted by American Electric Power Service Corporation and S & C Electric Company, demonstrated the ability of S & C type "G" circuit switchers to interrupt fault currents within 5½ cycles, de-energize 125 miles of 138-kv line without restriking, and interrupt 130 mva in a

138-kv loop circuit without causing incorrect operation of carrier ground relays.

The "circuit switcher" superficially resembles an ordinary gang-operated airbreak disconnect but has totally enclosed interrupters which operate integrally with the disconnect blades. Double gap type "G" interrupter units were used for line dropping and loop switching tests; single gap type "G" units for fault tests.

All tests were conducted on the effectively grounded 138-kv system connected to Clinch river Plant of Appalachian Power Company. Sixteen line-to-ground faults, in excess of 2,000 amperes, were applied to the same pole. On the final test the switch successfully interrupted 5,950 amperes with an arcing time of 1.1 cycles after clearing an aggregate of 4,200 amperes on previous tests. Recovery voltage frequencies up to 1,600 cycles were recorded.

According to the manufacturer, additional tests will have to be conducted to establish other maximum fault interrupting capabilities where more severe recovery voltage frequencies are encountered, such as interrupting on the primary of a transformer faulted on the secondary.

Ikalowych Joins Commonwealth Services Inc.

JERRY IKALOWYCH has joined the Industrial Relations Department of Commonwealth Services Inc., as a consultant on personnel and other industrial relations matters, according to W. B. Tippy, president of the management and engineering consulting firm.

Mr. Ikalowych was formerly with Terry-Phone Corporation, where he was responsible for analyzing client's internal communications systems and problems.

G-E Installs Utility Industry's First Remote-Controlled Supervisory System Units

THE utility industry's first solid-state supervisory systems have been installed at Western Massachusetts Electric Company by General Electric's Medium Voltage Switchgear Department, Philadelphia, according to an announcement by G-E.

Installation of two solid-state systems herald completely automatic power transmission for the entire Pittsfield, Massachusetts area. Re-

mote operation of three substations will be accomplished with solid-state master control unit located at substation in Pittsfield, Mass.

Installation of the transistors equipment offers substantially lower maintenance costs and improved reliability over conventional supervisory equipment, said Departmental Manager, Forrest E. Baker.

With Doreen as a control center, one supervisory system includes remote equipment at Silver Lake Substation located in the city of Pittsfield.

A second major supervisory system involves remote power station at Woodland Road and North Station of the giant experimental project located a few miles south of Pittsfield.

Western Massachusetts Electric Company dispatches all power over EHV, and a 115 kv line connects Doreen and Woodland Road is to be used for the feed. The Woodland Substation is the southern terminus of the EHV project.

In keeping with the research and development aspects of EHV, use of Solid-state supervisory equipment was the economical and logical solution for control of power from Doreen to Project EHV's North Station and Woodland Road, said the G-E announcement.

New Bulletin Describes American Demand Pressure Booster System

DETAILS of the American instrument-type Demand Pressure Booster for pounds-to-pounds service, are outlined in new Bulletin 417, just published by American Meter Company.

Designed as an instrument operating regulating system, the Pressure Booster will automatically and continuously increase or decrease the downstream pressure in proportion to demand to maintain a desired minimum constant pressure at a low level in the distribution system. Bulletin 417 describes how this feature reduces unaccounted-for gas losses, a minimum and assures optimum efficiency of the system operation. Installation diagrams and descriptions of various system installations are included in the Bulletin.

Copies of Bulletin 417 are available by writing to Advertising Department, American Meter Company, 920 Payne Avenue, Erie 6, Pennsylvania.

(Continued on page 20)



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INDUSTRIAL PROGRESS—(Continued)

Consolidated Edison Places Largest Switchgear Order Since World War II

LARGEST station-type switchgear order since World War II for a 27-kv distribution system has been placed with the General Electric Company by Consolidated Edison of New York.

The installation includes: 12 bus and transformer breaker cubicles, with 3,000-ampere Type ARH air-blast circuit breakers, associated disconnecting switches and bus; twenty-four feeder cubicles with 1,200 ampere Type ARH air-blast circuit breakers, disconnecting switches and bus; and a light-and-power breaker cubicle for station service.

Four power transformers, rated 132/28 kv, will feed four bus sections which will be enclosed in indoor cubicles rated 34.5 kv.

Metropolitan and suburban Long Island will be served by the new equipment now being manufactured by General Electric's High Voltage Switchgear Department, Philadelphia, Pa.

O. B. Falls, Jr., marketing manager for the department, said the equipment will combine many breaker, switching and bus functions into a co-ordinated compact design, saving maximum space and installation expense for Consolidated Edison.

Shipment of the equipment will begin in June, 1962 and continue through October, 1962 when the order will be completed.

American Gas Association Names 5 Judges For 5th Annual Public Relations Contest

FIVE leaders in public relations and publishing have been named judges in the fifth annual Public Relations Achievement Awards contest of the American Gas Association.

The gas industry's outstanding public relations programs will be selected by H. B. Miller, president, Public Relations Society of America, and director of public relations, Pan American World Airways; Kennerly Woody, vice president, New York Telephone Co.; J. Edward Drew, director of public relations, Lever Brothers; Earl C. Sandmeyer, publisher, Utility Spotlight, and vice president, Chemical Bank New York Trust Co.; and A. E. Coburn, editor, Gas Heat and Comfort Cooling.

Awards will be made at the A.G.A.

annual convention to be held in Las Vegas, October 1-4.

Previous winners for top achievement in gas industry public relations have been Southern California Gas Company, Los Angeles; Quebec Natural Gas Corporation, Montreal; Michigan Consolidated Gas Company, Detroit; and Minneapolis Gas Company, Minneapolis.

Motion Picture Based on Yankee Atomic Plant Wins Award

A group of Italy's top nuclear scientists have awarded a major prize motion picture based on New England's first nuclear power plant, Yankee Atomic Electric Company, Rowe, Mass.

The film, "Pioneering with Power," won the "international prize of high industrial value" at the Second International Film Festival sponsored by the Rassegna Nucleare in Rome. The group meets annually to read documents, films and other material dealing with atomic energy.

The film project was sponsored by Yankee Atomic Electric Company, representing 10 New England utilities, with Stone & Webster Engineering Corporation and Westinghouse Electric Corporation, veteran designers and builders of nuclear facilities. Bay State Film Productions, Inc., Springfield, Mass., produced the minute sound-and-color film.

Word of the award was relayed to Stone & Webster, which supervised construction of the Yankee plant, via the company's representative in Paris, who arranged showing. Professor Felice Ippolito, Secretary General of Italy's National Committee for Nuclear Energy, comparable to the U. S. Atomic Energy Commission, reported the award in Rome.

F. W. Argue, president of Stone & Webster Engineering Corporation, said the film is now being shown to scientific and industrial groups in several European countries, as well as in the United States.

The Yankee plant, now operating at its full capacity of 140,000 watts, is located on the Deerfield River in northwestern Massachusetts. Construction of the facility was completed in 1960, ahead of schedule at a cost about \$13 million below estimates.

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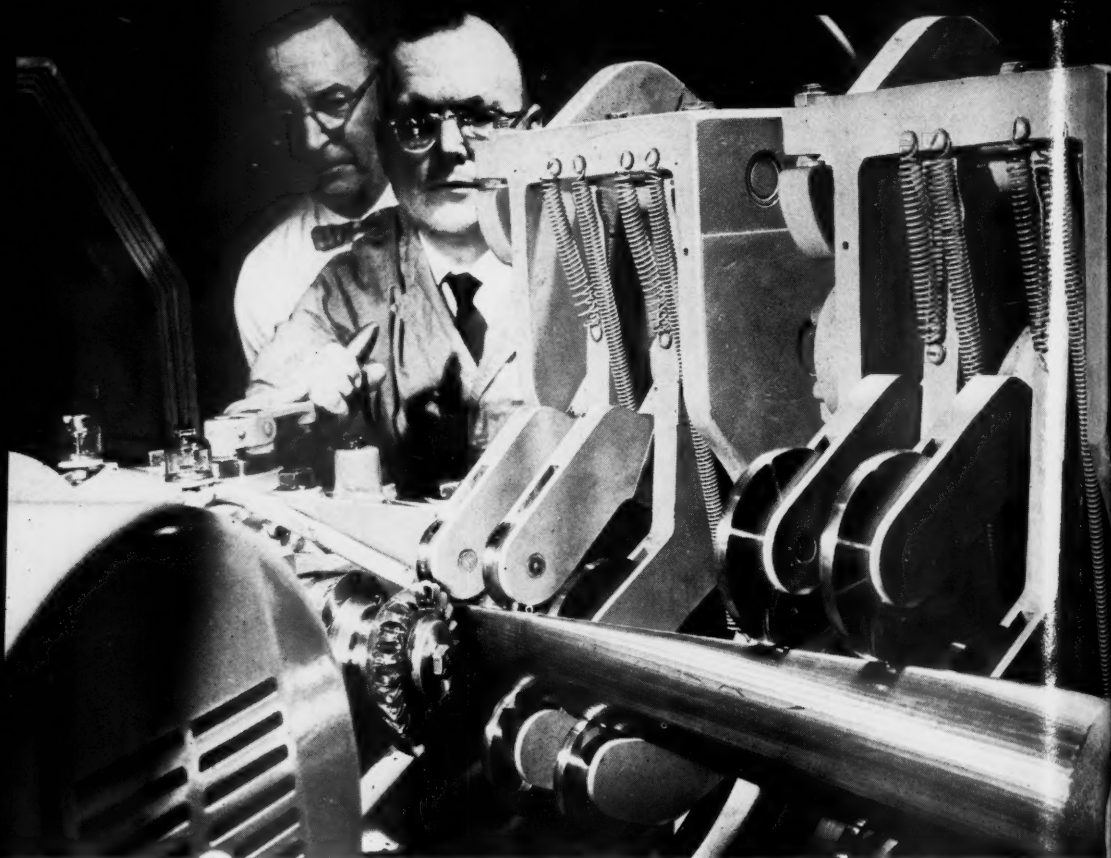
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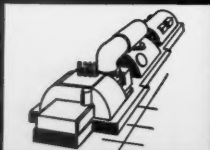
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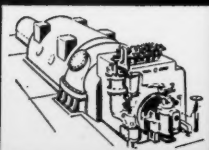
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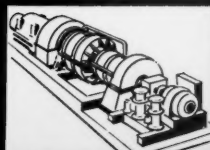
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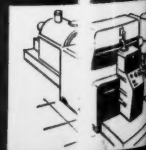
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